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ABSTRACT

The document makes up volume I of a report on the philosophy and activities of Project AMES (Actualization of Mainstream Experience Skills), a model program for vocational training and independent living skills instruction for 34 moderately and severely retarded students (6 to 21 years old). Following an introductory chapter, Chapter 2 briefly describes the seven components of the Project AMES Vocational Training Model: community job assessment, student assessment, vocational training objectives identification, development of school based training, development of community training, placement, and followup. Chapter 3 lists staff development activities. Chapter 4 covers project participants, the roles and responsibilities of staff members, curriculum development, curriculum design in the vocational domain, the school workshop, student assessment, business contracts, training sites, wages, recordkeeping and data analysis, community mobility training, social-interpersonal instruction, individualized education program development, and parent involvement. Among results reported in Chapter 5 are that the students acquired new vocational competencies and the Ames community learned that mentally disabled persons are capable of productive work. Chapter 6 contains research reports with titles that include: "Increasing Production Rates of Mentally Disabled Adolescents in School and Community Vocational Training Programs--The Use of a Changing Criterion Design"; "Improving the Production Rates of Secondary-Aged, Moderately Mentally Disabled Students in a School-Based Work Activity Center"; and "Attending to Task in a Public School Vocational Training Program." Chapter 7 contains a legal reference guide for school vocational training programs. Results of a vocational education survey of intermediate and secondary public school programs for moderately and severely handicapped students are reported in an eighth chapter. The final chapter contains an outline of simulated jobs, the Project AMES employer's manual, the Parent/Guardian Inventory, the Vocational Education Survey, and the Iowa Sheltered Employment Survey. (SW)

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Project A.M.E.S. (Actualization of Mainstream Experience Skills)

Volume I
1979-80

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A great many people have helped make Project A.M.E.S. a success. All of these individuals had one goal in common: to help moderately mentally disabled and severely/profoundly handicapped students work competitively for the first time.

Special acknowledgement must be made to the staff of Willson-Beardshear School, the Ames Community School District Administration and Board, the Heartland Area Education Agency 11, and the Project A.M.E.S. Advisory Committee who, functioning as a team, ensured success of the project.

Special thanks is given to the employers, supervisors, and co-workers who gave the students this opportunity. It is these people who ultimately will retain the students as employees.

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Chapter 1

Introduction

Chapter 1

According to the Education for All Handicapped Children Act (P.L. 94-142), the Educational Amendments of 1976 (P.L. 94-482), and section 504 of the Rehabilitation Act (P.L. 93-112), vocational training must be provided for all handicapped persons. Regardless of recent legislation, little emphasis has been placed on serving the moderately mentally disabled and severely/profoundly handicapped (hereafter referred to in this monograph as moderately and severely handicapped). This task remains one of the more difficult problems facing special educators, vocational educators, and rehabilitation personnel.

Traditionally, moderately and severely handicapped students have been denied vocational services due to a perceived lack of potential. However, the results of recent research (e.g., Bates, Renzaglia, & Clees, 1980; Bellamy, Peterson, & Close, 1975; Rusch & Mithaug, 1980; Wehman & Hill, 1980) have indicated that these individuals are capable of acquiring a variety of complex vocational competencies in sheltered and competitive employment situations. Although these results have been encouraging, little of this research has been conducted with school-aged populations enrolled in public school programs. If the vocational potential of moderately and severely handicapped individuals is to be maximized, vocational education efforts must be developed at the secondary level to facilitate transition into the adult work world (Razeghi & Davis, 1979). These vocational education efforts need to document effective program procedures that can be replicated in a variety of public school settings.

Additional evidence in support of the need for a more planful approach to vocational education is the employment status of graduates from public school programs. In 1973, Stanfield reported that most mentally retarded adults were unemployed and spent the largest percentage of their lives solitarily watching television. If public education is not resulting in the employability of a large percentage of its graduates, the direction and quality of our special programs needs to be critically examined.

A needs assessment recently conducted in Iowa (Maurer, 1980) revealed that the vocational training opportunities in schools are limited and the vocational prospects after graduation are poor for severely handicapped persons. Fifty-two percent of the severely/profoundly handicapped persons graduated from public education services over a three year period were not involved in any remunerative work. Likewise, 35 percent of moderately mentally disabled persons were not employed even at the work activity employment levels. Forty percent of the schools with programs serving the severely/profoundly handicapped report inadequate space to conduct vocational training. Twenty-four percent of the workshops surveyed reported not serving the severely retarded.

In response to: 1) federal mandates to provide appropriate vocational education for all handicapped students and 2) compelling evidence regarding the need to develop effective vocational training programs, the Iowa Department of Public Instruction, Special Education Division supported the implementation of Project A.M.E.S. (Actualization of Mainstream Experience Skills), a model program for vocational training and independent living skills instruction for moderately and severely handicapped students. This program was cooperatively planned and supported by the Ames Community School District, the Heartland Area Education Agency 11, and the Special Needs Section of the Iowa Department of Public Instruction. Located at the Willson-Beardshear School in Ames, Iowa, Project A.M.E.S. has been in operation since the beginning of the 1979-1980 school year.

This monograph is a report of the philosophy and activities of Project A.M.E.S. The purpose of this document is to report the results of the first year of Project A.M.E.S. and to present material that facilitates replication efforts. This monograph is intended also to identify the current "state of the art" in vocational training for the moderately and severely handicapped in Iowa, and to provide a stimulus to improve existing training options. During the 1980-81 school year, several replication efforts were initiated. The dissemination of this monograph is intended to stimulate similar program efforts in Iowa and in other parts of the country.

As a result of implementing Project A.M.E.S., the vocational prospects of the students at Willson-Beardshear School were considerably improved.

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Chapter 2

A Vocational Training Model for Moderately and Severely Handicapped Students in the Public Schools

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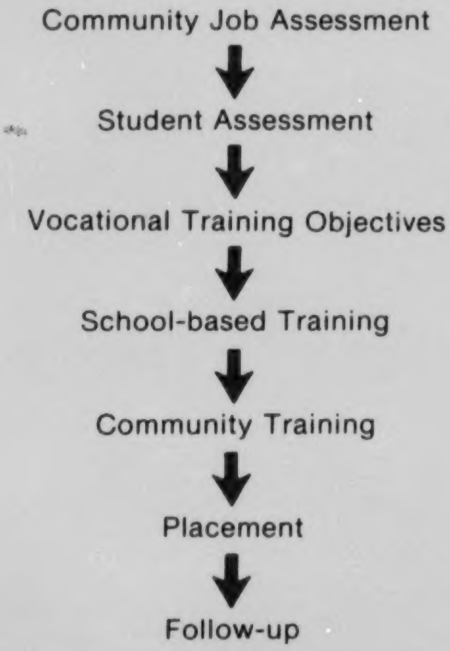
Chapter 2

The Vocational Training Model that Project A.M.E.S. followed was adopted from Mithaug and Haring's (1978) proposal for rehabilitation and placement. This model is delineated in Figure 1. In the past few years, several programs in different parts of the country have begun to use versions of this model to promote the vocational development of moderately and severely handicapped persons (Rusch & Mithaug, 1980; Wehman & Hill, 1979). The components that were followed by Project A.M.E.S. are discussed as they relate to a public school-based service delivery model.

Figure 1

Vocational Training Model for Moderately and Severely Handicapped Students



Community Job Assessment

For a public school vocational program to function optimally, the training activities need to be designed to prepare persons for vocational opportunities that are realistically available in their home communities. In order to ensure this outcome, the school personnel responsible for the vocational program must continuously assess availability of jobs, and analyze the specific skills required for successful performance. By constantly collecting information regarding the vocational opportunities in a particular community, there is a greater chance that school-based training efforts will be directed in a manner that maximizes successful vocational placement.

Community assessment activities that are possible include the development of a listing of employment situations where former students have succeeded, a tally of the frequency of specific Help Wanted Ads in local newspapers, a listing of employment openings from local job service, discussions with area rehabilitation counselors, telephone or written surveys of employers, discussions with business and service clubs, personal contacts with employers, reviews of other successful vocational training programs, and observations of local sheltered workshops and work activity centers. From these assessments, a school program has information from which it can develop and provide relevant vocational training experiences.

In addition to determining realistic availability of particular vocations, a more detailed assessment of specific skill requirements is preferable. Since sheltered employment and competitive employment are both potential vocational goals for moderately and severely handicapped persons, specific assessment techniques are needed to identify skills needed for various jobs within each of these areas.

For competitive employment positions, a job skill inventory strategy (Belmore and Brown, 1978) has proven to be a particularly effective assessment instrument. This inventory provides an outline from which information regarding specific occupations can be organized. From this inventory, the specific skills required to succeed in particular vocational situations are identified. As a result of this activity, the vocational curriculum for specific students can be identified. The validity of this curriculum sequence is established by the fact that it was obtained from direct observations of persons performing potentially available jobs in the community.

In the sheltered employment area, the job skill inventory strategy can also be used to identify skill requirements. However, an assessment instrument specifically designed to identify behaviors important for sheltered employment success has been developed by Dennis Mithaug (Mithaug and Hagmeier, 1978). This assessment instrument has been used in Oregon, Washington (Mithaug and Hagmeier, 1978), Kansas (Johnson and Mithaug, 1978), Illinois and Iowa. Although the results of this questionnaire have revealed consistency in scoring across various parts of the country, it is important that individual school program personnel analyze the skill requirements of their local sheltered workshop(s). From this analysis, priorities can be established for the content of a vocational training program.

Student Assessment

Vocational assessment should consist of activities which obtain information about a student's skills and performance in order to promote appropriate training decisions. These assessment activities can more readily assist appropriate training decisions if the target behaviors are skills that are important for vocational success. Thus the content of a vocational assessment should evolve directly from the community job assessment, a process which details the requisite skills for vocational success.

For competitive employment situations, criterion-referenced assessment of behaviors identified by the job skill inventory strategy should yield information of immediate usefulness for training decisions. In criterion-referenced assessment, the specific job requirements are delineated in detail, and the student is frequently evaluated regarding his/her progress toward meeting the job criteria. Ongoing assessment of student work behavior (e.g., steps completed independently, attending to task, production rate, production quality, etc.) may assist school personnel in identifying conditions under which the student performs optimally. These conditions may relate to how the job is presented, how the task is analyzed, or what consequences are provided. By identifying the unique conditions that result in improvements in student performance, a student's vocational program becomes individualized.

Criterion-referenced assessment procedures are also used appropriately for behaviors determined to be important for sheltered employment success. The content of these assessments should result from a school's analysis of its local sheltered workshop(s).

In addition to criterion-referenced assessment, other more formal vocational evaluations may prove useful. For example, the Prevocational Assessment Career Guide (PACG) (Mithaug, Marr, and Stewart, 1978) is a tool that has been used with severely disabled persons to evaluate readiness for sheltered employment. The behaviors that are included on this instrument were selected on the basis of being important for success in sheltered employment.

Vocational assessment of students in public school programs should result in the identification of a student's skills and deficits in areas that are deemed important for employment. These assessment activities should be ongoing in an attempt to promote training decisions that result in students acquiring new vocational competencies.

Vocational Training Objectives

The content of a vocational training program is determined by the vocational objectives that are selected. If these objectives do not reflect the behaviors that will most readily facilitate a person's employment, the validity of the training objectives is seriously in question. However, if these objectives evolve from student assessment activities which determine a person's present level of performance in relation to standards for success in community job placement, the validity of the objectives is assured. Training objectives should represent the discrepancy between what a student needs to do to succeed in community employment, and what the student presently does. If training objectives are not directly related to closing this gap, they need to be re-evaluated.

Some of the behavioral objectives for students in a vocational training program will be generic, whereas others will be specific to particular individuals. These objectives may include vocational skills, social interpersonal skills, independent living skills, community mobility skills, etc. Although the training objectives in a vocational program may come from several different areas, all objectives should reflect behaviors which are (a) important to community employment, (b) immediately useful for the student (e.g., functional), and (c) consistent as possible with the expectations of similar aged, nonhandicapped peers.

School-based Training Activities

The school-based training activities should involve students in vocational experiences that are as similar as possible to potentially available community employment. Consequently, the range of school-based services needs to reflect the range of community opportunities. This may result in a school-based program including a simulated sheltered workshop and work stations for food service, janitorial, clerical, and groundskeeping employment.

In addition to ensuring the relevance of the vocations that are involved in a training program, the environmental conditions of a school-based training program should resemble the conditions experienced in sheltered and competitive employment situations. These environmental conditions include: (a) specific time for work to begin, (b) normal length of a work period, (c) an established break time, (d) a typical supervisor to worker ratio, (e) realistic number of supervisor contacts, and (f) a set time for the work period to end.

Although supervisor-worker ratio and number of supervisor contacts may need to be unusually high for training purposes, other conditions can be more easily simulated. For example, specific times can be established for beginning and ending work, a ten-minute break can be used to separate work periods, and the length of the work periods can be extended to more closely approximate community norms.

School-based training activities need to be longitudinal. Students should be involved in vocational training at a young age, with increasing involvement in this curriculum area as they become older. These longitudinal training activities should result in gains in the vocational skill area (e.g., job acquisition, increased attending, increased production rate, increased production quality, etc.)

and in the job-related skill area (e.g., improved social interaction with co-workers, punctuality, independent mobility to and from the job station, appropriate clothing selection, etc.). As a result, students will be better prepared for the next step in the program, community-based training activities.

Community Training Activities

A school-based vocational training program can result in students acquiring many useful skills in the school environment. However, it is inappropriate to assume that these skills will generalize to community environments. If our goal is to promote employment of the moderately and severely handicapped students, teachers must be committed to conducting instruction in those environments where these skills are required. Therefore, schools must be willing to estabish training sites with community employers. These training sites should be established in vocations where there is a potential employment market for mentally disabled persons.

Ideally, a student over the age of 16 would have the opportunity to participate for extended time periods in a variety of vocational training sites. For instance, a student may experience working as a janitor, a dishwasher, and a factory worker. With these experiences in a student's background, the student, his/her family, and school personnel are in a much better position to select an appropriate vocational placement during the last year a student is in the school program.

In a student's initial community vocational training experience, extensive supervision may be necessary from the school staff. As a student demonstrates greater job proficiency, this school-provided supervision is faded to the actual work supervisor. The amount of school supervision that may be necessary in a student's first community experience may not be required in future vocational placement experiences.

Systematic instruction activities will also need to be conducted at the community training sites. Potential target behaviors included in these instructional activities are job acquisition, performance, speed, interpersonal skills with co-workers, etc. By conducting vocational instruction in realistic settings (i.e., community employment site), the chances that a person will learn skills that enable him/her to function in community employment are maximized.

Placement

After a person has been involved in a series of vocational training experiences, a plan should be developed that provides for a smooth transition into the adult work world. This transition plan will involve placement into competitive employment for some students and placement into sheltered employment for others. A large number of significant persons in a student's life (e.g., teacher, parent, potential employer, etc.) and a variety of service agencies (e.g., group home director, rehabilitation counselor, etc.) should be consulted in developing the transition plan.

Once a job has been selected for an individual, training activities need to be conducted to insure the person's success. As with the previous community vocational training experiences, a special staff member may be needed to initially train and supervise the student in his/her job placement. Training and supervision activities are often necessary to establish a student's adherence to a job routine, continuous attention to a task, competitive production rate, and quality of work performance. When the employee's performance expectations are being met by the student, the school personnel will fade their involvement and transfer control over to the regular supervisor.

In addition to a systematic decrease in the amount of school-provided assistance, the student's number of working hours per day should systematically increase. During an individual's final semester as a public school student, he/she could be a full-time employee of a local business establishment and be receiving support services from school. This procedure allows a student to experience the reality of the post-school work world, while at the same time benefiting from the available services of the public school program.

Follow-Up

After a person is placed into an employment situation, follow-up activities are necessary to assist the individual to maintain the position. Initially, on-the-job supervision may be required. As the school personnel begin to fade their involvement, a systematic plan needs to be formulated to ensure extended follow-up services. This plan may include a series of increasingly infrequent direct observations, weekly or biweekly supervisor evaluations, and co-worker interviews. Follow-up activities may result in the early identification of problems, thus allowing the school staff to intervene and prevent a termination.

Another important component of follow-up activities is the inclusion of post-school agencies in the process. These may involve the local workshop placement specialist, rehabilitation counselor, and adult services social worker. Since these persons will be available to provide services for the individual beyond the age of 21, their role in the follow-up process is crucial to long-term maintenance of employment.

Conclusion

The Vocational Training Model that has been outlined above can be successfully incorporated into a public school program for moderately and severely handicapped students. This model requires school personnel to constantly assess and respond to local job availability. Vocational assessment activities should provide information relevant to the determination of how well students are performing in relation to available job requirements. From such assessments should evolve the content (behavioral objectives) of the training program. This practice assures the validity of the vocational training objectives. School-based training activities and community training experiences can then be geared toward assisting students to develop general work habits and a range of specific vocational competencies. From these experiences, it becomes possible to make a responsible decision regarding an appropriate vocational placement. Systematically planned follow-up activities can then be designed to promote long-term job retention.

As a result of implementing the Vocational Training and Placement Model in public school settings, the vocational prospects of moderately and severely handicapped students will be enhanced. For many of these students, competitive employment will become possible; and for others, sheltered work will be available.

A longitudinal commitment to this model should result in the maximum benefit by the students. For an individual student, his/her vocational potential is not an inherent quality; this potential is dictated by the range and quality of environmental experiences that are provided. If a school system implements a comprehensive vocational training program, its students will graduate with the opportunity to be productive members of society. Without such a comprehensive program, this end result is far less certain.

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Chapter 3

Vocational Education Staff Development for Educators of Moderately and Severely Handicapped Students

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Chapter 3

Inservice Training for Vocational/Community Program Development

Staff development was an important variable that influenced the effectiveness of the vocational training program in Project A.M.E.S. The personnel that were involved in staff development included classroom teachers, teacher aides, principal, mental disabilities consultant, work experience instructor, and support staff (i.e., speech/language clinician, psychologist, occupational therapist, and physical therapist). Content for staff training was presented on two levels. One level of presentation included an emphasis on the philosophical rationale for the program's goals and objectives. The other level of presentation provided the participants with specific information on vocational training strategies with moderately and severely handicapped students. Following the presentation of general and specific information, the participants were given the chance to voice their opinion regarding the program. If there was consensus agreement on the project's goals and activities, the participants passive role in the inservice was quickly shifted to active development of the specifics for program implementation. These specific activities resulted in the generation of an organizational outline, including staff roles, individual responsibilities, and timelines.

Table 1 provides the reader with the tentative schedule of inservice topics that was presented to the Willson-Beardshear staff. Following these presentations, a sequence of specific tasks and a tentative timetable was developed. This document (Table 2) was the map that was followed in implementing Project A.M.E.S.

Prior to the 1979/1980 school year, the Willson-Beardshear staff had been minimally involved in vocational training. The major vocational activity had been a bow-making project at Christmas. However, during the 1979/1980 year, the staff radically changed the nature of the school program and consequently improved the student's vocational prospects considerably. This result can be partially attributed to the staff development activities, but more importantly to the following factors: (a) willingness to learn and apply new information; (b) excellent leadership from the work experience instructor; and (c) active team participation by a dedicated group of professionals.

The intent of this section is to present for the reader a listing of the staff development activities that were used to get Project A.M.E.S. started. However, the staff development activities were successful because the personnel at Willson-Beardshear school were willing to alter past roles and realign priorities.

Table 1
Agenda for Inservice Presentation
Monday

8:30 a.m. - 9:45 a.m.	Introductions
9:45 a.m. - 10:00 a.m.	Break
10:00 a.m. - 12:00	Overview of Model Illustrations of Competence Steps in Developing a Vocational Training Program Task Identification
12:00 - 1:00 p.m.	Lunch
1:00 p.m. - 2:15 p.m.	Functional Curriculum Development Strategy
2:15 p.m. - 2:30 p.m.	Break
2:30 p.m. - 4:00 p.m.	Job Skills Inventory Questionnaire Method

Table 1 (cont.)

Tuesday

8:30 a.m. - 12:00	Community Job Assessment
12:00 - 1:00 p.m.	Lunch
1:00 p.m. - 4:00 p.m.	Task Analysis

Wednesday

8:30 a.m. - 9:45 a.m.	Task Analysis Continued
9:45 a.m. - 10:00 a.m.	Break
10:00 a.m. - 12:00	Assessment
12:00 - 1:00 p.m.	Lunch
1:00 p.m. - 4:00 p.m.	Reinforcement Token Economics Shaping Instruction Giving Response Prompting

Thursday

8:30 a.m. - 11:30 a.m.	Chaining
11:30 a.m. - 1:00 p.m.	Lunch
1:00 p.m. - 4:00 p.m.	Discrimination Learning Stimulus Prompting Review of Acquisition Techniques Charting/Graphing Production Rate Programs

Friday

8:30 a.m. - 12:00	Transfer of Change Techniques - Varied Stimuli - Self Management
	Program Evaluation Program Writing

Table 2

Target Tasks for Implementation of Project A.M.E.S.

1.0 Community Needs Assessment
  1.1 Contact local workshops
  1.2 Conduct volunteer agency survey
  1.3 Conduct competitive work survey
    1.3.1 Contact local Job Service Office
    1.3.2 Contact local Chamber of Commerce
    1.3.3 Review newspaper ads
    1.3.4 Review MDE placements
    1.3.5 Conduct telephone survey of businesses
    1.3.6 Talk to vocational rehabilitation
    1.3.7 Talk to local National Alliance of Business Chapter
    1.3.8 Who Do You Know survey

2.0 Make Personal Contact With Employers

3.0 Assess Community Jobs
  3.1 Conduct job skill inventories
  3.2 Identify volunteer tasks

4.0 Task Analyze Community Jobs

5.0 Assess Student Vocational Performance
  5.1 Administer standard assessment
  5.2 Administer specific assessment on volunteer, simulated, and competitive jobs

6.0 Establish Specific Work Area(s) In School
  6.1 Obtain work tasks
    6.1.1 Borrow or purchase tasks from local workshops
    6.1.2 Volunteer tasks
    6.1.3 Simulated tasks
    6.1.4 Competitive employment tasks
  6.2 Stock work area(s)
    6.2.1 Work tasks
    6.2.2 Data sheets
    6.2.3 Reinforcers
    6.2.4 Calculators
    6.2.5 Rulers
    6.2.6 Graph paper
    6.2.7 Stop watches
    6.2.8 Time clock
    6.2.9 Time cards
    6.2.10 Kitchen timer
    6.2.11 Tokens (pennies)
    6.2.12 Clipboards
  6.3 Schedule work area(s)
    6.3.1 Secondary (16-21)--3 hours per day
    6.3.2 Intermediate (11-15)--3 hours per day
    6.3.3 Primary (6-10)--30-45 minutes per day
  6.4 Establish break area
  6.5 Establish token exchange center
    6.5.1 Select reinforcers
    6.5.2 Stock store

7.0 Develop IEP
  7.1 Involve parents (explain SSI)
  7.2 Develop goals and objectives
  7.3 Write training programs
  7.4 Develop evaluation procedures
    7.4.1 Data on acquisition, production, attending
    7.4.2 Prompt system
    7.4.3 Graphing

8.0 Implement Vocational Training Program
  8.1 Collect baseline data
  8.2 Continually collect data
  8.3 Chart results
  8.4 Graph results
  8.5 Revise program as necessary

9.0 Explore OJT Funding

10.0 Prepare Employer Manual

11.0 Place Students On OJT

12.0 Form Employer's Council

Chapter 4

Project A.M.E.S.: A Community and Vocational Training Program for Moderately and Severely Handicapped Students

by:
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Project Participants

During the 1979-1980 school year, a total of twenty-five moderately mentally disabled and nine severely/profoundly handicapped students received direct services from Project A.M.E.S. Students came from thirteen school districts besides the Ames Community School District. Table 2 summarizes the total number of students served by age and handicapping conditions. Table 3 - 7 provide student characteristics.

Chapter 4

Willson-Beardshear Staffing Patterns: Roles and Responsibilities

by Susan Teas

In order for a functional, age appropriate curriculum to be implemented, it was essential that the staff (see Table 1) working directly or indirectly with each student, work as a TEAM. It is this team concept that has been the foundation of the success of Project A.M.E.S. at Willson-Beardshear School.

The Principal

The role of principal is one of administrative leadership and responsibilities. Specifically, the principal must approve all travel and instruction that takes place, not only inside, but also outside of the school building. He is the channel for administrative clearance of schedules and methods/modes of instruction. The principal, in order to represent the school staff to central office administration, must approve, support, and understand the curriculum philosophy. Because he must assume the ultimate responsibility for the actions and activities of the school staff, he is involved from the initial planning stages through the implementation of each student's program.

The Classroom Teacher and Aide

Each classroom teacher holds responsibility for each of her student's programs. The curriculum is written in the four functional domains--vocational, domestic living, community mobility, and recreation/leisure. The vocational component of the curriculum on the senior level receives the most emphasis, however, vocational objectives are included on all grade levels. Within the vocational domain, the classroom teacher assigns a specific job to the student, designs the program format for that job, teaches or instructs the student in the job skills, and supervises both the student and those staff members who work with the student while he/she is completing his or her job. Each classroom teacher has the direct aid of a paraprofessional.

The Support Staff

The principal, the classroom teachers and aides, and the support staff are equal members of the TEAM. All support personnel indirectly or directly work with each student in the vocational domain.

The speech and language consultant is involved in program objectives regarding the worker's ability to communicate in school and in the community. She is able to assist the staff, the community members, and the business personnel working with the student by offering suggestions for improving the student's communication skills.

The school psychologist works with the student and the staff regarding the worker's performance on the job by identifying social and adaptive behaviors which should be modified or emphasized. The school psychologist is able to observe the worker in the community setting, speak with the personnel working at the business establishment and in school, and offer suggestions for improving productive overt behaviors and for altering particular behaviors which may not be acceptable.

The occupational therapist and certified occupational therapist assistant provide adaptive jigs and other prosthetic devices for those workers who are physically disabled. By modifying the physical requirements of the job, the work routine becomes more manageable due to the insight and efforts of these team members.

The physical therapist's program for a particular student can be and should be integrated with the vocational program. In order to extend the physical therapist's prescriptions into the work environment, direct communication and understanding need to take place between the support staff and the teaching staff working with the student.

The school social worker communicates directly with the school staff and with the parents of each student. A student's educational program can not be effectively planned unless input from the parents is included. The school social worker has the expertise and opportunity to provide input from the home into the individualized educational plan for the student.

Two individual consultants from the Area Education Agency provide valuable information to the classroom teachers and to the staffing team. The mental disabilities consultant and the hearing consultant work closely with each student in the school program, assisting the staff with the implementation of each student's individualized education plan.

The school nurse provides the necessary medical and physical expertise. Independent working and living depends on the student's ability to care for his or her own personal needs. The school nurse communicates not only with parents and staff regarding the physical/medical needs of the mentally disabled student, but more importantly, with the student. With the cooperation of the classroom teacher, programs on physical growth and development are implemented by both the school social worker and school nurse.

The TEAM is not complete without including the physical education teacher, the art teacher, and the music teacher. The recreation/leisure domain of the curriculum is important in the total education of the mentally disabled individual. The objectives for the student in the areas of art, music, and physical education must include the goals and objectives identified by the staff as developed in the student's individualized education plan.

Because the TEAM includes so many individuals, there must be competent staff to support all the efforts of that team. The school secretary, the all-purpose aide and the custodian play a vital, if not "impossible-to-get-along-without" role in the implementation of the functional, age appropriate curriculum for the mentally disabled student.

Vocational Staff

In addition to the principal, the classroom teachers, teachers' aides, and support personnel, two additional staff are specifically assigned duties in the vocational domain. These staff members are the work experience instructor and the vocational training aide.

- *The Work Experience Instructor*--The work experience instructor assumes two specific roles: (1) the public relations person and (2) the staff consultant. As public relations coordinator, she makes initial employer/business contacts. It is the initial contact that may determine whether or not a business firm will consider a cooperative working relationship with a school based vocational program. The work experience instructor provides inservice training to future employers, co-workers, and supervisors. Once a business establishment has been chosen and has agreed to be a training site, the work experience instructor is then responsible for setting up the work agreements, identifying job stations and work materials, providing assurances of quality work to be performed, providing assurances of supervision and training given by the staff, and communicating with employers, co-workers, and supervisors throughout the training program.

The work experience instructor acts as a consultant to the school staff in a number of specific ways. First, the work experience instructor acts as a consultant liaison; the individual who assesses the community for potential work sites. The design of the vocational training program is based upon the classroom teacher assuming an active role in community based vocational training. Therefore, the work experience instructor's leadership to the staff in sharing information from her community assessments is vital. Secondly, the work experience instructor consults with the staff in developing other curricular domains. Because the vocational goal is for each school graduate to be a productive, working member of society, the domestic living, community mobility, and recreation/leisure domains must also be included in the individual's educational plan. The work experience instructor is primarily responsible for the student's vocational training, but must also provide input in developing the student's abilities in all the other domains.

An additional responsibility of the work experience instructor is working with vocational rehabilitation counselors, sheltered workshop supervisors, the Department of Social Services, and the Association for Retarded Citizens. Transition from school to the post-school community should assure continuation of habilitation efforts designed to promote maximum participation in community life. Therefore, every agency that provides services for adult mentally disabled individuals should be involved with a student's program prior to graduation from the school setting. By orchestrating planning activities among several community agencies, a transition plan may be formulated that promotes continued student growth and independence.

Family involvement is a major component of the program. Without family support, a student's IEP is not complete. Family support of a student's vocational training program is promoted by frequently communicating between school and home. The work experience instructor must explain to parents how earning wages affects the individual's Supplemental Security Income benefits. Transportation to and from vocational training sites requires communication and coordination between home and school. Communication with parents regarding their child's feelings and attitudes regarding work is important. If a problem exists that the staff is not aware of, parents should communicate those concerns to the school personnel. All the goals and expectations identified for the student need to be understood and supported by the parents. The work experience instructor must, therefore, keep communications flowing smoothly between home and school.

All vocational training activities require working under the rules and regulations of child labor laws and policies. It is important that these policies and laws be interpreted correctly and that all training follow the guidelines established under the law. The work experience instructor is responsible for the legal aspects of mentally disabled individuals working in and with the community.

Performance information (data) is collected daily for every student involved in vocational training. Performance information includes speed of production, quality of work, and attendance to task. Record keeping is vital in developing and revising the worker's training program. The work experience instructor consults with the teachers and staff regarding how to keep data, how to analyze data, how to use data for changing or adding a reinforcement/incentive program, and how to design a new program for each individual student.

The work experience instructor is also in charge of developing training agreements between the school and local business, maintaining records of wage earnings, and developing written vocational program plans. The work experience instructor consults with the staff involved to make sure that all the forms are correctly completed and implemented, and that the accounting system is accurate and complete. Given the integral role of the work experience instructor, it is important that he or she be a member of the staffing team to provide overall views regarding each individual worker's strengths and weaknesses in developing the IEP.

- *Vocational Aide*--The primary responsibility of the vocational training aide is to supervise the on-the-job training experiences of the students involved in the community training experiences. The training aide spends time in school with the student and teacher, observing the student's academic skills (counting, writing, and reading) and social skills (communicating and interacting with peers and adults). It is important to understand how each student communicates in a variety of situations. The training aide also observes the student working at school to understand what vocational skills the student has and which reinforcement procedures are used with the student.

The primary responsibility of teaching the job skill at the community training site is assigned to the classroom teacher. The training aide must understand the job requirements and be able to continue job supervision once the worker has been trained in order to assure the business personnel that the job will be done correctly with acceptable quality.

The primary duties of the training aide at the training site include:

1. Supervision of the training program as established by the classroom teacher and the training site supervisors.
2. Maintaining and recording the student worker's progress.
3. Providing and/or arranging for transportation to and from the training site.
4. Communicating with the school staff and the training site personnel regarding difficulties that need to be approached jointly and acted upon.
5. Providing daily information, impressions, and data to the classroom teacher and school staff.
6. Conducting evaluations of each worker with the assistance of the training site personnel.
7. Working and communicating with the worker's advocate in order to improve social interactions, working conditions, and his/her job performance.

The training aide is the student's advocate in the community, especially at the training site. It is important to maintain the role of advocate and assist others such as co-workers and supervisors to assume the role of advocate as well. The training aide, as well as the school staff in general, assures the training site personnel that the work completed by the student will be completed correctly with acceptable quality.

Alternate Staffing Patterns

If a school system does not employ a work experience instructor or provide for a person who has time away from direct service with students, it is essential that time be provided the classroom teacher in order for him/her to make business contacts, set up training sites, and supervise students working in the community. Time at the beginning of the school year is needed to plan the vocational training program. Assuming that little, if any, previous contacts have been made, a minimum of two hours per day should be given to the classroom teacher in order for him/her to contact personnel by phone to schedule interviews, visit the business site, assess the community, inventory each business, and develop work stations at the training sites. After community training placements are made, the teacher will need to supervise the student workers and communicate with business personnel daily.

Once initial training sites are established and contacts made, one morning or afternoon each week of community time, free from direct service to students, would be helpful if not essential to continuing positive working relationships with business personnel, and to supervise the activities of the student workers to insure quality student production.

In order to free the classroom teacher from direct teaching responsibilities for him/her to make community contacts, a number of staffing patterns could be considered. First, the instruction time designated for art, music, or physical education could be scheduled back-to-back, thereby providing a one or two hour block of time, once a week, for the classroom teacher to get out into the community.

Second, it is important to note that increasing the number of students placed in the community in on-the-job training decreases the number in the school building needing constant supervision. Third, when making business contacts, it may be possible and/or desirable to include one to three students in employer interviews, site visits, and work station reviews. By including a number of students in making community contacts, fewer students will be in the school building, which would make supervision of the entire class less strenuous. Fourth, it might be feasible for another classroom teacher, his/her aide, and the "community" teacher's aide to supervise two classes together. The intermediate and senior level students could be grouped to work on social behaviors, personal awareness, communication skills, or vocational skills. The area support personnel such as the speech and language consultant, social worker, psychologist, occupational therapist, physical therapist, certified occupational therapy assistant, and school nurse would have an opportunity to conduct group instruction, and the classroom teacher would be able to spend two hours out in the community.

Table 1

Willson-Beardshear Staff 1979-1980

Position	Name	Percentage FTE in Willson-Beardshear School
Funded by Ames Community School District		
Principal	Lee Himan	50%
Secretary	Barb Ebbers	100%
Educational Aide-- General Assistance	Gwen Taylor	100%
Teacher-- Primary Trainable	Debbie LePera	100%
Educational Aide-- Primary Trainable	Barbara Fricke	100%
Teacher-- Intermediate Trainable	Bonnie Twedt	100%
Educational Aide-- Intermediate Trainable	Roberta Hurd	100%
Teacher-- Senior Trainable	Diane Larson	100%
Educational Aide-- Senior Trainable	Lois Hickman	100%
Teacher-- Severely/Multiply Disabled	Susan Henritz	100%
Educational Aide-- Severely/Multiply Disabled	Kathy Henryson	100%
Teacher-- Severely/Multiply Disabled	Brenda Nelson	100%
Educational Aides-- Severely/Multiply Disabled	Rita Morgan Jill Starcher	100% 100%
Art Teacher	Mary Jo Matilla	40%
Music Teacher	Fred Anderson	10%
Nurse (reimbursed by Heartland AEA 11)	Marilyn Goll	50%
Funded by Heartland AEA 11:		
MD Consultant	Gwen Gresham	20%
Physical Therapist	Lola Kopplin	100%
Occupational Therapist	Beth Haugdahl	40%

Table 1 (cont.)

Position	Name	Percentage FTE In Willson-Beardshear School
Certified Occupational Therapy Aide	Sherri Luick	100%
Adaptive Physical Education	Kathy Eggan	50%
Speech Clinician	Joyce Powers	100%
Psychologist	Elizabeth Nelson	40%
Social Worker	Carol Adams	40%
Funded by Project Dollars		
Work Experience Instructor (employed by Heartland AEA 11)	Susan Teas	100%
Vocational Training Aide (employed by Ames Community School District)	Collette Erickson	100%
Project Secretary (employed by Ames Community School District)	Barb Adams	100%
Outside Consultant	Dr. Paul Bates	.05%

Table 2

Students Receiving Direct Services During Year One

Type of Handicapping Condition	Age of Student				
	6 - 8	9 - 12	13 - 18	19 - 21	Total
Moderately Mentally Disabled	2	4	14	5	25
Severely/Profoundly Handicapped	2	2	3	2	9

Total: 34

Table 3

Descriptive Data for Primary Age Classroom of Severely/Profoundly Handicapped Students

Name	Age	Sex	IQ	Test	Date	Residential Status	Basic Skills
Erich	7-10	M	Cattell Mental Age 7-8 months	Cattell Infant Intelligence Scale	1977	Group Home	Toilet trained, feeds self and is ambulatory
Matt	7-5	M	13	Developmental Activities Screening Inventory	12/79	Group Home	Feeds self and is in a wheelchair for mobility
Kim	9-1	F	22	Stanford-Binet	4/79	Group Home	Toilet trained, feeds self, used a few verbal labels, and is ambulatory

Table 4

Descriptive Data for Primary Age Classroom of Moderately Mentally Disabled Students

Name	Age	Sex	IQ	Test	Date	Residential Status	Basic Skills
Kim	9-11	F	43	Stanford-Binet	2/19/80	Home	Toilet trained, feeds self, engages in conversational speech and is ambulatory
Leonard	8-6	M	50	Stanford-Binet	5/5/80	Home	Toilet trained, feeds self, engages in conversational speech, and is ambulatory
Sallie	7-3	F	No Score	Stanford-Binet	4/20/79	Home	Partially toilet trained, feeds self, uses manual sign language, and is ambulatory
Jolene		F	40	Stanford-Binet	(UA)	Home	Toilet trained, feeds self, engages in conversational speech, and is ambulatory

Table 5

Descriptive Data for Secondary Age Classroom

Moderately Mentally Disabled Students

Name	Age	Sex	IQ	Test	Date	Residential Status	Basic Skills
Mary	16-7	F	43 Hearing Loss Downs Syndrome	Stanford-Binet	5/74	Foster Home	Toilet trained, feeds self, engages in verbal conversation and is ambulatory
Brenda	17-5	F	43	Stanford-Binet	2/79	Home	Toilet trained, feeds self, engages in verbal conversation, and is ambulatory
Karen	21-11	F	42 Downs Syndrome	Stanford-Binet	2/79	Home	Toilet trained, feeds self, engages in verbal conversation and is ambulatory
Karla	16-2	F	38	Stanford-Binet	3/79	Group Home	Toilet trained, feeds self, engages in verbal conversation, and is ambulatory
Lane	17-9	M	55	Stanford-Binet	3/76	Group Home	Toilet trained, feeds self, engages in verbal conversation, and is ambulatory
Bill	20-3	M	40 CP	Stanford-Binet	2/79	Home	Toilet trained, feeds self, engages in verbal conversation, and is ambulatory
John	17-11	M	52 Downs Syndrome	Stanford-Binet	2/79	Home	Toilet trained, feeds self, engages in verbal conversation, and is ambulatory
Randy	22-0	M	37	Stanford-Binet	5/72	Home	Toilet trained, feeds self, engages in verbal conversation, and is ambulatory
Michelle	20-2	F	53 Downs Syndrome	Stanford-Binet	1/72	Home	Toilet trained, feeds self, engages in verbal conversation, and is ambulatory
Mark	19-2	M	43	Stanford-Binet	4/74	Home	Toilet trained, feeds self, engages in verbal conversation, and is ambulatory

Table 6

Descriptive Data for Intermediate Age

Classroom of Moderately Mentally Disabled Students

Name	Age	Sex	IQ	Test	Date	Residential Status	Basic Skills
Missy	13-8	F	42	Stanford-Binet	3/79	Home	Toilet trained, feeds self, is ambulatory, and uses verbal labels
Mike	13-8	M	UA	UA	UA	Home	Toilet trained, feeds self, engages in conversational speech, and is ambulatory
Jim	15-4	M	38 Downs Syndrome	Stanford-Binet	4/79	Home	Toilet trained, feeds self, verbally labels objects, and is ambulatory
Amy	12-9	F	51 Downs Syndrome	Stanford-Binet	5/77	Home	Toilet trained, feeds self engages in limited conversation, and is ambulatory
Bill	14-0	M	47 CP Epileptic	Stanford-Binet	10/78	Group Home	Toilet trained, feeds self engages in verbal conversation, and is ambulatory
Peggy	14-6	F	46 Downs Syndrome	Stanford-Binet	2/79	Home	Toilet trained, feeds self, engages in limited verbal conversation, and is ambulatory
Lori	15-1	F	35 Deaf CP	French's Picture Vocab.	9/79	Home	Semi-independent in toileting, partially feeds self, uses manual sign and a communication board, and uses wheelchair and crutches for mobility
Larry	13-7	M	52	Peabody Picture Vocab.	6/78	Group Home	Toilet trained, feeds self, engages in verbal conversation and is ambulatory
Lila	15-3	F	45	Stanford-Binet	3/79	Home	Toilet trained, feeds self, engages in verbal conversation and is ambulatory
Charlotte	15-3	F	40 Downs Syndrome	Stanford-Binet	3/76	Home	Toilet trained, feeds self, uses verbal labels, and is ambulatory

Table 7

Descriptive Data for Secondary Age

Classroom of Severely/Profoundly Handicapped Students

Name	Age	Sex	IQ	Test	Date	Residential Status	Basic Skills
Tracy	15-11	M	31 Downs Syndrome	Leiter	1979	6 years	Toilet trained, feeds self, uses manual sign, and is ambulatory
Clark	19-5	M	No Score Downs Syndrome	Leiter	1979	18 years	Toilet trained, feeds self, uses manual sign, and is ambulatory
John	13-4	M	36 CP	Stanford-Binet	1980	6 years	Toilet trained, feeds self, engages in conversational speech, and uses wheelchair for mobility
Jeff	12-0	M	27 Downs Syndrome	Leiter	1978	5 years	Toilet trained, feeds self, uses manual sign, and is ambulatory
Mike	19-6	M	No Score	Wisc.	1978	1 year	Toilet conditioned, feeds self, uses manual sign, and is ambulatory
Laura	17-4	F	10	PPVT	1975	5 years	Toilet trained, feeds self, uses manual sign, and is ambulatory

Curriculum Development

by Susan Teas

Project A.M.E.S. was originally designed as a vocational training program involving moderately and severely handicapped students at Willson-Beardshear School. As the year progressed it became apparent that vocational instruction was not independent from skill development in other major life areas such as community mobility, domestic living, and recreation/leisure. Because of this interdependence among domains, Project A.M.E.S. expanded to include all aspects of the curriculum.

Curriculum materials which are written and packaged specifically for the moderately and severely handicapped do not include all the functional needs of each individual and often are written too generally to be used at all levels of abilities and in all localities. The staff at Willson-Beardshear needed a comprehensive, longitudinal, functional-based curriculum designed specifically for the needs of the students in the school and in the Ames community. The curriculum model that Project A.M.E.S. used was adopted from the Madison, Wisconsin Public School System. This model is based on the premise that curriculum objectives must be age-appropriate, functional, community referenced, and derived from a student's four major life areas: community mobility, domestic living, recreation/leisure, and vocational.

An age-appropriate curriculum consists of behaviors and activities that relate to the chronological age of the student. For example, listening to John Travolta records is an appropriate behavior for a teenager, whereas listening to a Winnie the Pooh record album is not.

Instruction in functional life areas is emphasized. The activities an individual needs to function independently in the community are included in the curriculum. Learning to ride a city bus, for example, is not necessary if an individual lives in a rural community that has no bus system.

The curriculum is community referenced. Instruction takes place within the community setting where particular skills will be performed. It cannot be assumed that learning within one environment will be transferred to another setting. For example, if a student learns how to shop within the simulated store at school, that student may or may not be able to independently shop in a store in the community.

The ability to cross the street using model street signs in the school gymnasium may or may not transfer to crossing a street in the community. Since assumptions of skill transfer cannot be made, skill instruction should take place in the community and/or skill acquisition needs to be verified in community settings.

Finally, the curriculum is composed of objectives from the major life areas a student will encounter if one is to fully participate in community life. Thus the objectives of the curriculum are designed to prepare a person to travel in the community, to use community services, to recreate in the community, to live as independently as possible in the community, and to work in the community. Because society as a whole attaches a great deal of importance to maintaining a job, the vocational domain of the curriculum is given the greatest emphasis. In this domain, independent work skills are taught with the goal that the individual become a productive member of the work force.

Curriculum Teams

The first step in establishing the curriculum for Willson-Beardshear School was assigning each staff member to a team in each of the four domains. Staff were assigned according to their primary student responsibilities. The following domain teams included the classroom teachers, the support service personnel, the school support personnel, and the teachers' aides.

Domestic Living Team

Senior Severe/Profound Teacher (team leader)
Mental Disabilities Consultant
Psychologist
Certified Occupational Therapy Assistant
School Nurse

Recreation/Leisure Team

Physical Education Teacher (team leader)
Social Worker
Art Teacher
Music Teacher
Occupational Therapist
Senior Severe/Profound Aide

Community Mobility Team

Intermediate Mentally Disabled Trainable Teacher (team leader)
Speech and Language Consultant
Senior Mentally Disabled Trainable Aide

Vocational Team

Senior Mentally Disabled Trainable Teacher (team leader)
Project A.M.E.S. Training Assistant
Project A.M.E.S. aide
Intermediate Mentally Disabled Trainable Aide

In addition to the teams assigned to each of the four domains, a fifth team was formed to develop the primary level of skills within each of the domains.

Primary Skill Development Team

Primary Mentally Disabled Trainable Teacher (team leader)
Primary Severe/Profound Teacher
Primary Mentally Disabled Trainable Aide
Primary Severe/Profound Aides (two individuals)

Curriculum Design in the Vocational Domain

by Susan Teas

The goal of Project A.M.E.S. is to develop and implement work skill training procedures which provide moderately and severely handicapped students with marketable work skills necessary for successful community and/or sheltered workshop employment.

Target Population

The target population consists of 34 moderately and severely handicapped students, ranging in age from six through twenty-one, who have been previously considered to have little or no potential for job placement.

Classes consist of a primary, intermediate and senior level class of moderately, mentally disabled trainable students, and a primary and senior level class of severely/profoundly handicapped students. Each class is assigned one teacher and one teacher's aide. Class size ranges from five in the primary severely/profoundly handicapped to eleven in the intermediate moderately mentally disabled trainable class.

Programming

In order to develop, implement, and evaluate vocational training activities of moderately and severely handicapped students, a functional, community-based, prevocational/vocational curriculum has been developed. This curriculum includes an objective, data-based evaluation system which provides ongoing assessment of each student's program.

- *Awareness*--The first phase of the vocational program is termed Awareness. Students ages six through ten concentrate on vocational objectives such as sorting, matching, assembling, and manipulating. Each student's program is developed according to his/her specific needs. Frequent review of a student's recorded progress determines program adaptations and revisions.

Mentally disabled trainable students in the Awareness phase work for at least a thirty minute block of time daily. During this time, measurements of each student's on-task behavior, attending ability, and production capability are recorded. Severely/profoundly handicapped students in this phase of the vocational program work for a fifteen to thirty minute block of time daily.

The purposes of the Awareness phase of the vocational program are to (a) build the student's attending endurance to a level where he/she can work for extended lengths of time, (b) gather production data which are measurable over a period of time, and (c) develop the student's work habits and attitudes which are comparable and acceptable to the working community.

- *Accommodation*--Students ages eleven through fifteen in the Accommodation phase of the vocational program, work from one to two hours daily in the school workshop. Each student works five days a week, every day of the school year.

Students are assessed on general work skill and social skill competencies. Data are collected daily on the job proficiency of each student. In order to collect data which are measurable and comparable over time, jobs are assigned which are either actual or duplicates of those found in the working community. Jobs are chosen from non-profit organizations in the community, or are simulated jobs designed by the vocational staff.

Student assessment, both formal and informal, provides data in terms of each student's ability to: (a) complete the job, (b) perform the job at a productive rate, (c) perform the job at a productive rate with a high degree of accuracy, (d) attend to task, (e) work for long time periods with supervision, (f) work for long periods of time without supervision, and (g) independently follow the rules of conduct as established in the working environment.

Objectives for each student are written in all areas critical for successful future placement in the working community. Most students require not only vocational training in selected skill areas, but also instruction in social skills required to gain and keep his/her community placement.

Instructional techniques are characterized by behavior training principles such as task analysis, prompting and fading, modeling, and frequent use of positive reinforcement. The students are taught to perform each vocational task with a high degree of quality prior to being trained to produce at a competitive rate and transfer the skill to a similar setting.

- *Exploration*--It cannot be assumed that moderately and severely/profoundly mentally handicapped students can spontaneously transfer training from the school setting to a community placement even though the job may be the same. Because each student is expected to perform competently in the least restrictive placement, specific training takes place at the actual community job site.

During the Exploration phase of the vocational program, students ages fifteen through twenty-one explore the world of work in the Ames community.

Exploration objectives include (a) refining skills needed to work cooperatively on the job with co-workers, (b) learning the job and completing the assigned task with acceptable quality, and (c) following the established work rules regarding wearing safety apparel, handling equipment, reporting to the business supervisor, following break times, and completing the assigned task.

The Exploration phase of the training program is more than the customary school field trip. The objective of exploration is not only to view the working business, but to actively participate in the tasks and jobs performed at the business establishment. Exploration lays the foundation for the student's preparation phase.

- *Preparation*--Project A.M.E.S. staff is committed to conducting on-the-job training with students. The supervisory and training provision is necessary for

Curriculum Team Duties

The curriculum is designed to teach functional, age-appropriate skills in environments which students presently encounter and will encounter upon graduation from school. The curriculum was developed in four major phases. First, each curriculum team met individually to delineate or determine the environments or settings in which an individual is functioning or could function in the future. Although an individual may currently live in a group home, instruction in a more independent living situation must be planned for.

Second, the major environments or settings were broken down into subenvironments. For example, a home can be divided into the dining room, living room, and so on. Business environments can be divided into work settings, eating area, break space, and so on.

Third, after establishing the environments and subenvironments, the activities in those spaces were determined. For example, cooking, eating, and cleaning up are common activities in a kitchen.

Fourth, the skills needed in order to complete the activities were identified. Even if an individual cannot perform all of the skills independently, that person is prepared to perform at least part of the activity unassisted.

Each team had specific duties for a particular domain, however, in order for the entire staff to have input in all of the domain areas, a working bulletin board was established which provided space for organizing all the environments, subenvironments, and activities under the domain heading. The staff were then able to compare their team's development with other teams' in order for all to work within the same format.

An example of the format used to delineate the curriculum content is found in Table 8. The end result of the work of the team members in the four domains was found recorded on such a form, indicating the domain, environment, subenvironment, activity, and specific skills. The curriculum is designed to be open-ended. Additional subenvironments, activities and skills can be added as they are identified.

Professional Time to Write

One professional day during the month of April was devoted entirely to curriculum writing. All staff, excluding the aides, attended a group meeting to determine the working format and the goals of the day. After the group meeting, each team met separately to delineate the environments and subenvironments. After working for approximately two hours, the staff again met as a group to share their results. Each environment and subenvironment was posted on the bulletin board under the domain heading. The staff critiqued each other's environments and subenvironments and as a group provided information regarding appropriate and correct methods of delinating the curriculum content. The second individual team meeting was assigned to identify the activities for each subenvironment. The activities were then written on small cards and posted under the subenvironments on the bulletin board. At the last group meeting, the staff identified those activities which were not functional or essential and identified activities which had been overlooked by the team. By the end of the professional day, each team had identified all the environments, subenvironments, and a majority of activities found in those subenvironments.

Table 8

Example Curriculum Development for Willson-Beardshear School

Domain: Domestic Living

Environment: Home

Subenvironment: Kitchen

Activity: Using an iron

Skills:
1. Collect equipment--iron, board, clothes
2. Set up ironing board
3. Plug in iron
4. Select appropriate iron temperature
5. Iron item(s)
6. Turn off iron
7. Set iron upright to cool
8. Put away ironing equipment
9. Store iron when cool in an upright position
10. Keep hands away from the plate of iron

After school in June, the staff again met as a group for five consecutive days. These days were assigned specifically to curriculum development. Each team met to identify the remaining activities for each subenvironment and to identify the skills needed to perform those activities. The Curriculum Development Form was used to organize the activities and skills in each domain. The result of the week's efforts was a functional curriculum of objectives from each of the skill domains. Although the curriculum is still being developed, the sections that have been finished are already being implemented.

A professional day set aside early in the fall of the 1980/1981 school year will provide time to update, refine, and organize the curriculum into working files, three-ring notebooks, and cross-referenced indices. Periodically, additional meetings will be scheduled to continually upgrade the quality of the curriculum.

many students to initially meet employers' job proficiency standards. As students become more adept at their job, assistance is gradually withdrawn and supervision shifted to the actual work supervisor.

Preparation experiences begin when the student is eighteen years old. Each student continues in the preparation phase until his/her final year of school eligibility.

Each on-the-job training experience is designed to run for approximately eight to ten weeks (See Table 9). The goals of each training experience are identified specifically for each student, however, these goals usually include attaining at least 80% competitive norm for quantity of production and a consistent 95% to 100% production quality. Training is terminated when the student attains acceptable work performance as measured by the daily progress information.

Job skills are taught at the job site by the classroom teacher assigned to the student. Initial instruction is provided for at least one week, after which the training aide continues supervision. The training program is written, revised as needed, and evaluated by the classroom teacher, training aide, and training site personnel. The classroom teacher assumes responsibility for the training program while the training aide assumes responsibility for daily supervision and feedback to the professional staff.

The training model for the preparation phase of the vocational program is designed to allow for one worker at a time to be trained (taught the job skills) by the classroom teacher. The model also allows for one worker at a time to return to the school for post-evaluation and preparation for the next training site.

The weeks prior to initial placement of the first student into job site "A" will be devoted to task analysis of the job, student assessment, and writing the worker's training program format. At the end of the school year, time is afforded the teacher for post-assessment of student behaviors, attitudes, and abilities, and for general program review.

- *Transition*--For the student who is in his/her last year of school, the training site is assigned with the expectation of the student meeting the requirements for competitive employment. The job site is unique to the needs and abilities of the student. Consideration is given to a person's work skills, independent living skills, social skills, and other adaptive behaviors and limitations.

Each transition student is supervised according to his/her needs. The training program is designed to gradually reduce on-the-job supervision in order to (a) place responsibility for supervision in the hands of the business supervisor, and (b) enable the student to be an independent worker.

Project A.M.E.S. staff work closely with the business personnel regarding wages, employee benefits, and employment status. Plans are developed months in advance of graduation so that the transition from student to employee is made as smoothly as possible.

Hours of observation and evaluation of the student's productivity, social and adaptive behavior, and work attitudes on the job provide information for the school staff to make needed program modifications and for the business personnel to learn how to interact and communicate appropriately with the student.

It is necessary that the transition plan be developed and supervised in cooperation not only with the school and the business, but also with the parents. Vocational Rehabilitation, The Association for Retarded Citizens, The Department of Social Services, The Social Security Office, and any other person or persons serving as an advocate for the student.

During the final nine weeks of school, the student should begin full time employment as an employee of the business establishment. This enables school personnel to gather and analyze data which measure a student's ability to (a) get to and from work independently, (b) endure and remain productive throughout an eight hour day (c) achieve and retain competitive work rates, and (d) budget appropriately earned income.

Table 9

On-the-Job Training Schedule

	*																																			
Student #1	/	/	/	/	T	t	.	.	A	.	.	.	/	T	t	.	.	B	.	.	.	/	T	t	.	.	C	.	.	.	/	/	/	/	/	/
Student #2	/	/	/	/	/	T	t	.	.	B	.	.	.	/	T	t	.	.	C	.	.	.	/	T	t	.	.	D	.	.	.	/	/	/	/	/
Student #3	/	/	/	/	/	/	T	t	.	.	C	.	.	.	/	T	t	.	.	D	.	.	.	/	T	t	.	.	E	.	.	.	/	/	/	/
Student #4	/	/	/	/	/	/	/	T	t	.	.	D	.	.	.	/	T	t	.	.	E	.	.	.	/	T	t	.	.	A	.	.	.	/	/	/
Student #5	/	/	/	/	/	/	/	/	T	t	.	.	E	.	.	.	/	T	t	.	.	A	.	.	.	/	T	t	.	.	B	.	.	.	/	/

Key:

/ - One week: Activities in school include pre-assessment, planning, preparation for training, and/or post-assessment and evaluation of the completed training site.

T - Classroom Teacher: Initial on-the-job training is conducted by the classroom teacher prior to supervision responsibilities assumed by the training assistant.

t - Training Aide: After initial training by the classroom teacher, the training aide supervises the remaining seven weeks of work.

A - Manufacturing Company site

B - Processing Company site

C - Food Service site

D - Housekeeping site

E - Janitorial site

Student #1-#5 - Senior level Mentally Disabled Trainable and Severely/Profoundly Handicapped students ages eighteen through twenty one.

*- Each square represents one school week.

The School Workshop

by Susan Teas

A room originally designed to be used for multipurposes has become the Willson-Beardshear Workshop. Instead of working within the classrooms, it is important that each student experience the necessity to "go to work" to a designated area, and that he/she must work during the same time each day with the responsibility of completing an assigned job. Job classifications within the workshop include simulated jobs designed by the classroom teachers for each individual student, volunteer work for non-profit organizations, and subcontract work from area businesses.

Simulated Work

Simulated work is a component of most vocational training programs. A simulated work assignment provides a student with the opportunity to acquire competencies in vocational areas that resemble employment possibilities in the community.

All simulated work is developed to include two important aspects. First, materials used in simulated jobs are actual materials from businesses. Left overs, rejects, and extras are gathered from manufacturing and processing plants which can then be used to simulate the actual work done at the business establishments. The simulated work is assembled and disassembled daily. Never is the completed product disassembled in front of the worker or co-workers. It is detrimental for a worker to see his/her completed product disassembled. Second, every simulated job is designed for a worker's specific needs with objectives identified to improve or refine the quality or quantity of production.

The following are some of the objectives used in developing a worker's program format. This objective list is not inclusive.

Working Objectives

1. Work 90% on task for increasing amounts of time.
2. Maintain 90% on-task behavior without supervisor contacts for a two hour period.
3. Increase the rates of productivity on five assembly tasks to 80% of the competitive standard.
4. Acquire a ten step sequence of bagging knife, fork, and spoon, proceeding in a left to right sequence.
5. Sort black and white socks.
6. Remove and separate previously combined objects (e.g., golf tee packages) and place them in respective locations (disassemble).
7. Use hand tools (hammer, screwdriver, and drill) in the assembly of a flower box.
8. Work at a manual assembly task without avoidable delays for a two hour work period.
9. Work productively (80% of competitive standard) for an hour long work period.
10. Work accurately (90% to 100%) for a one hour work period.
11. Communicate with the work supervisor when out of work materials.
12. Communicate with the work supervisor when in pain.
13. Follow work related instructions 90% of the time within thirty seconds.
14. Dress self after using the toilet.
15. Prepare and package a sack lunch for work.
16. Travel to and from the place of employment by riding a bicycle.

Each simulated job is designed for the specific needs of the student worker. Appendix A provides a few of the simulated jobs that have been designed for the workers in Project A.M.E.S. The jobs include materials donated from local industry and clerical materials from the school's supply inventory.

Volunteer Work

Several volunteer and non-profit organizations in the Ames community have been contacted requesting work the students at Willson-Beardshear can complete. Contacts were made initially by phone, using the *1979 Directory of Human Services* (Area 11), published by United Way, as a resource guide. Follow-up personal contacts were made in order to visit the agency's work area, visit with the personnel in charge to assure quality, view the job process, obtain materials for ongoing work, and return the completed materials to the organization. Because volunteer work is of a non-profit nature, every student in the vocational program is able to complete these jobs.

A basic philosophy in dealing with volunteer organizations and other business establishments is that a request to do a job is never turned down. If it is impossible to complete the entire job, a portion of that job can usually be done. Even though some work is difficult to complete quickly, the students complete every job with acceptable quality and within an acceptable amount of time. Ideally, the job should include several hours worth of work in order for the skills to be learned and the production refined so that improvements in both quality and quantity can be measured. If a job is completed with acceptable quality in an acceptable amount of time, organizations will continue to provide volunteer work opportunities for the students. Therefore, the data gathered from a job can be comparable over several months of completing the same task throughout the school year.

The volunteer agencies listed below requested and received assistance from the students at Willson-Beardshear School. The job skills included collating, sorting, stuffing, folding, stapling, tearing, cleaning, polishing, and labeling.

1. Ames Community Schools; made scratch pads, labeled and erased cassette tapes.
2. Ames Cooperative Day Care Center; collated and stapled newsletter.
3. Ames-Gilbert United Way; assembled brochure and membership cards for mailing.

4. Ames International Orchestra Festival Association; Stapled together five tickets in numerical order.
5. Collegiate Methodist Church; Tore and sorted labels according to zip code and put the labels on newsletter.
6. Edwards School; Collated booklet.
7. Farm House Fraternity; Labeled newsletter.
8. Heartland Association; Collated and stapled four-page printout.
9. ISU Alumni Association; Stuffed brochures.
10. ISU Student Alumni Associations; Assembled play money, placed in brochure, and put paper clips on completed folder.
11. Iowa Professional Guidance Association; Folded letter, stuffed letter in envelopes and placed adhesive labels on envelopes.
12. Mary Greely Hospital Auxiliary; Collated, folded, stapled, and placed labels on letters.
13. Mitchell School; Collated and stapled booklets.
14. Parks and Recreation Department; Cleaned, polished and matched ice skates according to size.
15. Project A.M.E.S.; Collated letter.
16. Willson-Beardshear School; Collated booklet.

Throughout the school year, additional phone calls were made to remind individuals and organizations of the volunteer component of the vocational program at Willson-Beardshear School. The contacts were made in order to continue the good working relationships with many agencies, and to request cooperation from additional organizations.

Volunteer work cannot be relied upon as the sole source of jobs because it is usually not available on a daily basis. Some weeks, because of organizations' needs, there are several boxes of materials to complete. At other times, there is nothing to be done. Therefore, simulated activities, contract work, or community employment must be available when work sources are low.

Subcontract Work

In order for students ages sixteen and over to be able to complete work on a subcontract from manufacturing and processing firms, the workshop obtained certification as a Work Activities Center (this certification was not renewed for 1981). Restrictions included with certification state that only individuals sixteen or older can produce materials which will be sold or travel across state lines. Workers are paid at piece rates according to each individual's productivity. Because sixteen is the minimum age for clients in the Work Activities Center, only the senior Mentally Disabled Trainable and the senior Severe/Profound students are WAC clients.

Area manufacturing plants are a source of subcontract work which includes a specified number of assemblies or disassemblies to be completed for the specified amount of money. Because the school workshop is certified as a Work Activities Center, a student sixteen or over is a client of the WAC and no employee/employer relationship exists with the business issuing the contract.

The value of the contract is dependent upon the piece-rate cost of processing/manufacturing each part. For example, if a sub-contract is accepted in which each part is valued at $ .07, for completing 100 items, the Work Activities Center receives $7.00. Each student's production records are kept on each subcontract. Upon completion of the work, a check is issued from the business to the WAC for $7.00. That money is divided among the students who completed the subcontract. Each student earns the percentage for which he/she is productive. For example, if a student produced 50 percent of the entire contract, his/her earnings would be $3.50. The Work Activities Center, because it is a school and the clients are students, is exempt from withholdings such as taxes and other benefits.

If possible, subcontract work should be done at the the business firm. Working in the business environment with co-workers makes the job experience more realistic. While working at the firm, supervision is maintained by school personnel although business supervision is requested, if available, in order for the worker to follow the rules and regulations/expectations of employees of the business establishment. The training objectives at the business sites for each worker include (a) completing the job correctly, (b) producing at an acceptable rate, (c) following the direction of the business supervisor, (d) working along side and cooperatively with co-workers of the plant and of the school, and (e) following the break rules and conduct rules of the business.

Subcontract work that has been completed by Willson-Beardshear School students this past year includes:

1. Completing three to twenty step assemblies and disassemblies.
2. Using power tools such as a drill press and a table saw.
3. Working with machinery such as molders and testers.
4. Using hand tools such as pliers, wrenches, vises, hammers, screwdrivers, and cutters.
5. Measuring lengths such as five inches and ten feet.
6. Operating air-driven equipment.
7. Applying glue and paint.
8. Sorting similar and dissimilar materials.
9. Boxing and labeling completed materials.
10. Sanding.
11. Removing stamps with steel wool.
12. Reading dials.
13. Making quality judgments.

Scheduling

Students work within the vocational domain five days per week, every day of the school year. In addition to working in the school workshop, the intermediate and primary Mentally Disabled Trainable students explore work jobs in the community. The senior Mentally Disabled Trainable students spend the majority of their working time in the community either on Exploration or On-the-job Training.

The following daily schedule allows for every student in school to work for a specific block of time, at the same time, daily.

9:00 A.M.	Senior MDT	Senior S&P		
10:00 A.M.	"	"		
11:00 A.M.	"			
12:00 noon	"			
12:30 P.M.		Senior S&P		Primary S/P
1:30 P.M.		"	Intermediate MDT	Primary MDT
2:30 P.M.			"	

The senior Mentally Disabled Trainable class works from 9:00 a.m. to 12:00 noon daily. The senior Severe/Profound class works from 9:00 to 10:00 or 12:00 noon and from 12:30 to 1:30 or 2:30 daily. The intermediate Mentally Disabled Trainable class works from 1:00 to 2:30 P.M. daily. The primary Severe/Profound and Mentally Disabled Trainable classes work for a fifteen to thirty minute block of time daily.

Because a normal workday requires a work tolerance and endurance of approximately eight hours per day, it is important that the older students receive as much vocational training daily as can be allowed in a school day. Three hours of vocational experience per day for the sixteen year old and above is needed to instruct that individual in the pride and routine of work. The intermediate aged student, eleven through fifteen, should work at least one to two hours daily. The primary aged students, six through ten, begin with a fifteen minute block of time and gradually work up to a forty minute work routine.

Record Keeping

It is important that data be kept on each student and on the operations of the entire workshop. Records kept over time show comparable data which indicates progress or decline. Without data collection and analysis, progress or decline would not be known, and needed program changes would not be made.

Work Experience Data Sheet--For those students working in the community, the Work Experience Data Sheet is completed with the date, the name of the student, the job site and job description, and the number of hours worked. This is tabulated daily. The monthly figures show the total number of hours and students out of the workshop working in the community at each job site (See Table 10).

Daily Productivity Record--It is important to know how many units were produced or completed on each job by the entire workshop clientle. The Daily Productivity Record, when recorded over a period of time, shows productive and unproductive months and which jobs are most frequently done (See Table 11).

Workshop Data--The Workshop Data worksheet provides a daily record of the number of students in the workshop and the length of time each student is working. The daily figures are then graphed at least once per month (See Table 12).

Attending To Task--The worker's quality and quantity of production reflects his/her ability to attend to task, and the worker's interest in attending to task may reflect the effects of the type of work being done, the working environment, the reinforcement procedures used, domestic conflicts, or physical interferences.

The Attending to Task record form includes the date, type of work being done, time the measurement is taken, and the percent of attending to task. In order to measure a worker's attending behavior, he/she is observed at least once a week at the work station. Every thirty seconds, for example, the teacher may briefly observe the student. If he/she is working during that one second interval, a "+" is recorded in the interval box. If he/she is not attending, a "-" is recorded. At the end of ten minutes, twenty intervals have been recorded. If a student received eighteen "+s" and two "-s" then he/she was attending to task 90 percent of the time.

Over time, the data may show improvements in overall attending ability, may show attending to task better on one job versus another, or may show general declines in attending to task which may indicate boredom or lack of enthusiasm for the job (See Table 13).

Production Record--On the Production Record form, the instructor records daily productivity information of each worker. The form includes the date, the time of data collection, and the quantity and quality of production (the number of items completed and the number of errors) in relation to normative standards. Other information recorded includes the worker's job description and the normative rate. One objective may be to meet the norm production rate, and another may be to produce at least 90 percent accurately. Daily recording and graphing of data shows whether the program/job is designed and implemented adequately. Without data collection and analysis, progress or regression in productivity would not be known (See Table 14).

Table 10

Work Experience Data

Date	Student	Job Site Job Description	Hours Worked

Table 11

Daily Productivity Record

	Date	Job	Type	Units Completed
Senior MDT		Bourns PTR	Contract	
		Napkin assembly	Simulated	
		Putting 10 kernels of popcorn in tubes	Simulated	
		Putting 5 kernels of popcorn in tubes	Simulated	
		Sort out glass bottle - lid - objects	Simulated	
		Taking index cards out of envelopes	Simulated	
		Putting 1 colored disc in bag	Simulated	
		Putting objects in glass bottle	Simulated	
Senior S&P		Putting 1 colored disc in bag	Simulated	
		Stuffing envelopes with index cards	Simulated	
		Sort out glass bottle - lid - objects	Simulated	
		Taking index cards out of envelopes	Simulated	
Intermediate MDT		Paper clip 4 IBM cards together	Simulated	
		Paper clip 3 IBM cards and put in envelopes	Simulated	
		Putting 10 kernels of popcorn in tubes and cap	Simulated	
		Putting 3 kernels of popcorn in tubes and cap	Simulated	
		Putting 4 kernels of popcorn in tubes and cap	Simulated	
		Putting 5 clips into bottles and screw on cap	Simulated	
		Bag 2 colored tubes and scotch tape the bag	Simulated	
		Putting lids on tubes	Simulated	
		Bourns PTR	Contract	
Other Contracts			Contract	
			Contract	
			Contract	
			Contract	
			Contract	

Table 12

Workshop Data

Date	Workers	Time	Date	Workers	Time	Date	Workers	Time	Date	Workers	Time

Table 13

Attending to Task

Date	Type of Work	Time	Intervals:	Event Total	Total Time	Per-Cent

Table 14

Production Record

Name: ______________________ Supervisor: ______________

Job Description: ______________________________

______________________ Norm: ______________

Day/Date	Collection Time		Total Time	Average	Quantity & Quality (Reinforcement)	Number Per Minute	Percent of Accuracy
	Start	Stop					

Student Assessment

by Susan Teas

Two basic reasons for conducting student assessment are to determine the student's present level of functioning, and to identify the goals and objectives of the student's individualized education program. In any assessment/evaluation program, the instrument must measure the information you wish to obtain. Consideration must be given to the frequency of evaluation, and the accuracy or reliability of the evaluation.

Reliable information can be obtained from both formal (standardized) and informal (observational) assessment instruments. Formal instruments provide data comparable within a homogeneous grouping, such as the mentally disabled. The results from formal instruments provide categorical information regarding an individual's performance skills. Informal instruments can be used to identify baseline abilities, degrees of strength, specific reactions to incentive programs, etc.

Formal Assessment

Pre-Vocational Assessment Career Guide (PACG)[1], by Dennis E. Mithaug, Deanna K. Mar, and Jeffrey E. Stewart, is used to assess individuals in three general areas: (1) worker behavior, (2) interaction skills, and (3) self help skills.

In the first portion of the PACG, the individual is rated according to (a) his/her attendance/endurance abilities (e.g., come to work regularly and work continuously), (b) his/her independence working (e.g., work without disruptions, follow safety regulations, and get to and from work), (c) how long it takes to learn the task (e.g., one to ten step tasks, with verbal, model, or physical prompts, and with limited corrections), and (d) how disruptive or appropriate is his/her behavior (e.g., follow the rules of work).

The second portion of the PACG measures the student's skill level in communicating and socializing. Communicating basic needs, safety skills, and social skills with others are measured on a point system in this portion of the PACG.

The third portion of the PACG measures the student's grooming, eating, and toileting skills. Being a successful employee depends in part on the individual's ability to maintain proper grooming, maintain personal hygiene, and care for toileting needs.

The total scores from each subcategory on the PACG Inventory are graphed on the Summary Profile Sheet. In all the categories, the individual's abilities are compared to acceptable sheltered workshop skill levels.

The Curriculum Guide that accompanies the PACG assists in identifying areas of needed improvement. The ratings below acceptable on the Inventory are entered on the Curriculum Guide as working objectives for the individual. These objectives then are included in the vocational component of a student's individualized education plan.

The PACG Inventory, Summary Profile Sheet, and Curriculum Guide are helpful at the beginning of a vocational program when a general assessment of abilities and establishment of basic objectives is needed. Every student, ages six through twenty one, is measured by the PACG, therefore, comparable data are obtained across age and grade levels, and across degrees of handicapping conditions. Therefore, the PACG is used as a pre-test in the fall of the school year. The test can be given to all students in the vocational program in all moderately and severely/profoundly mentally handicapped classes. This test can also be used as a post-test to compare an individual's ability with others in school and to compare or note his or her progress over the school year.

Informal Assessments

Informal or observational assessments are designed to measure or evaluate specific programs and students in a variety of educational settings. A few of the assessment forms used in Project A.M.E.S. are described below.

Supervisor's Evaluation Form--A seven question evaluation form is rated by the work supervisor during and at the end of the on-the-job training program (See Table 15). The questions cover a worker's skills in production and behaviors such as his/her attitude towards work. The evaluation form, even though it is broad, leaves room for specific comments which give additional insights into the individual worker's abilities as seen through the eyes of the floor supervisor. The Supervisor's Evaluation Form asks questions not only regarding a worker's production abilities and behavioral characteristics, but also asks if project staff are present too much or too little of the time.

Work Evaluation--The Work Evaluation form is completed at the end of the worker's on-the-job training program (See Table 16). The evaluation measures the individual's work scores in the areas of work adjustment, work habits, performance, relations with others, appearance, and self-help skills. The areas each have numbers assigned to them which signify a degree of acceptability. Depending on the response to the multiple choice question, a score is tallied in each category which is compared to the acceptable (workshop or working) level. Production averages are also recorded. The goal in most training programs is to be at least 80 percent productive with an average quality above 90 percent. The opinions of the individuals completing this evaluation form (the supervisor, advocate, and training aide) are included on the final page. The accumulated forms from a worker's on-the-job training experiences will be used when preparation is made for transition to competitive employment. The evaluations are part of the individual's resume. Each site and each job task is analyzed according to the student's ability to complete the job and to be a productive worker.

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[1] The PACG may be obtained by writing to Exceptional Education, P.O. Box 15308, Seattle, Washington 98115.

Table 15

Supervisor's Evaluation Form

Trainee/Employee's Name ______________________ Date of Placement __________

Job Title ______________________ Date Hired __________

Job Site ______________________ Current Date __________

Job Coordinator ______________________

Please Circle All Items Which Apply To The Trainee/Employee:

1. The employee:
   a) generally arrives and leaves on time
   b) maintains good attendance
   c) takes meals and breaks appropriately
   d) maintains a good appearance

   Comments on un-circled items: ______________________

   ____

2. The employee has:
   a) mastered all aspects of present job
   b) mastered many but not all aspects of job
   c) not mastered essential aspects of job to date

3. In order for the employee to follow directions regarding the job, the supervisor:
   a) can just give verbal instructions
   b) has to give many gestures as well as verbal instructions
   c) has to show the employee exactly what to do before he/she knows what to do

4. Project A.M.E.S. staff is present:
   a) too often
   b) too little according to the employee's needs
   c) an appropriate amount of time

5. This employee:
   a) frequently stops work and needs to be reminded to return to work
   b) works at a constant rate without reminders
   c) stops working occasionally but no more than other employees

6. The employee is:
   a) a good worker
   b) an average worker
   c) a below average worker

7. Does the Project staff in any way interfere with your supervision or plans for the employee? a) no b) yes
   (if yes, please briefly describe)

   ____

   ____

Other comments: ______________________

____

Supervisor ______________________

Table 16

Project A.M.E.S. Work Evaluation

Student's Name ______________________ Age ______ Date of Placement ________________

On-the-Job Site ____ Today's Date __________

Work Adjustment (Total Score _____)

A. Punctuality in reporting to work
   - (4) ____ always prompt
   - (3) ____ less than 15 minutes late
   - (2) ____ several hours late
   - (1) ____ misses whole days with no excuse

B. Punctuality at breaks
   - (4) ____ always prompt
   - (3) ____ less than 5 minutes late
   - (2) ____ as much as ½ hour late
   - (1) ____ more than ½ hour late

C. Response to criticism
   - (4) ____ good, accepts & learns from criticism
   - (3) ____ feels hurt, overly sensitive
   - (2) ____ defensive, hostile, angry, rejects criticism

D. Doing a job she/he does not like
   - (4) ____ works without complaining
   - (3) ____ complains but continues working
   - (2) ____ works slowly and takes a lot of breaks
   - (1) ____ does something else instead
   - (0) ____ refuses to work

E. Response to change in routine
   - (4) ____ no decrease in productivity
   - (3) ____ slight decrease in productivity
   - (2) ____ substantial decrease in productivity
   - (1) ____ refuses to work

Work Habits (Total Score _____)

A. Concentration when given instructions
   - (4) ____ always listens carefully
   - (3) ____ listens but does not follow instructions
   - (2) ____ has difficulty listening to instructions
   - (1) ____ does not listen to instructions

B. Concentration at work
   - (4) ____ attention never wanders
   - (3) ____ attention occasionally wanders
   - (2) ____ frequently not concentrating
   - (1) ____ unable to concentrate

C. Initiative
   - (4) ____ usually looks for things to do
   - (3) ____ sometimes looks for things to do
   - (2) ____ rarely looks for things to do
   - (1) ____ no initiative

D. Working when there are difficulties
   - (4) ____ continues working in spite of setbacks
   - (3) ____ continues working but shows distress
   - (2) ____ has trouble continuing work
   - (1) ____ stops work

E. Organizing work efficiently
   - (4) ____ maintains organization, always tidy
   - (3) ____ adequately organized
   - (2) ____ poorly organized, requires assistance

F. Follows safe operating procedures
   - (4) ____ nearly always

Performance (Total Score _____)

A. With experience, the quality of work
   - (4) ____ shows rapid improvement
   - (3) ____ shows moderate improvement
   - (2) ____ shows slow but gradual improvement
   - (1) ____ shows little improvement

B. With experience, the quantity of work
   - (4) ____ shows rapid improvement
   - (3) ____ shows moderate improvement
   - (2) ____ shows slow but gradual improvement
   - (1) ____ shows little improvement

C. Remember instructions from day to day
   - (4) ____ instructions do not have to be repeated
   - (3) ____ instructions have to be repeated occasionally
   - (2) ____ instructions have to be repeated once a day
   - (1) ____ instructions have to be repeated more than once a day

D. Asking questions
   - (4) ____ asks appropriate questions
   - (3) ____ asks few or no questions
   - (2) ____ repeats the same question

E. Judgement and decision-making
   - (4) ____ judgement good, decisions appropriate
   - (3) ____ adequate, could improve
   - (2) ____ makes decisions, but judgement poor
   - (1) ____ cannot make his own decisions

Performance Continued

F. Quantity of work
- (4) ___ does more than assigned
- (3) ___ does amount assigned
- (2) ___ does less than assigned
- (1) ___ does unsatisfactory amount

G. Quality of work
- (4) ___ high quality
- (3) ___ makes occasional errors
- (2) ___ makes many errors
- (1) ___ quality not acceptable

H. Need for supervision
- (4) ___ needs little or no supervision
- (3) ___ needs supportive supervision
- (2) ___ needs firm supervision
- (1) ___ resists supervision

Relations with Others (Total Score ___)

A. Cooperation with supervisor
- (4) ___ easy to work with
- (3) ___ sometimes difficult to work with
- (2) ___ frequently uncooperative
- (1) ___ usually uncooperative

B. Relation to other workers
- (4) ___ is a leader of others
- (4) ___ easily becomes part of the group
- (1) ___ is a bully and is unacceptable
- (3) ___ has a few friends
- (1) ___ avoids workers

Appearance (Total Score ___)

A. Personal hygiene
- (4) ___ good
- (3) ___ adequate
- (2) ___ frequently dirty or smells
- (0) ___ a severe problem

Self-help Skills (Total Score ___)

A. Mobility
- (4) ___ independent using public transportation
- (3) ___ dependent using public transportation
- (2) ___ requires assistance on the job moving from one area to another

Behavior

Circle the words which best apply to the worker:

well controlled
always pleases
withdrawn
aggressive
negative
hyperactive
hostile
anxious
fearful
passive

immature
impulsive
impatient
happy
moody
sulky
bored
pleasant
argumentative
craves attention

* *

Sub-scores

Work Adjustment ___ (17-20 acceptable)
Work Habits ___ (20-24 acceptable)
Performance ___ (26-32 acceptable)
Relations with Others ___ (8-12 acceptable)
Appearance ___ (3-4 acceptable)
Self-help Skills ___ (3-4 acceptable)

Total ___ (77-96 acceptable)

Production Averages

Quantity is ___% of competitive norm
Quality is ___% of competitive norm

Areas Needing Improvement ___

Judgement Regarding Employment ___

Data Analysis--In order to evaluate the success of a student's individualized education plan, the goals and objectives written for the student must be measurable. These measurable goals and objectives should be recorded frequently. For optimal measurement and analysis, the data should be recorded and charted daily. Several aspects of a student's vocational program should be measured. These may include:

1. The student's attending ability while working in groups or individually
2. The production abilities (in quantity) of the student
3. The quality of the student's production
4. The frequency of disruptive behavior
5. The number of times supervision is needed during the working period
6. The number of steps completed correctly within a specified task

In gathering data, it is important to be consistent in identifying the behavior being measured and in the amount and frequency of assistance that is given during the observation. The more frequently the data are collected, the more easily improvements or declines are seen. With a sensitive data collection system, better program decisions can be made.

Determining the Baseline

A baseline is established by first task analyzing the activity. The instructor goes through the activity or the task as the student is expected to perform it. Each step of the task is listed assuming the student has no previous skill in performing the activity.

If plugging in a vacuum cleaner to a wall outlet is the task you want to teach, the task analysis might look like this:

1. Push the vacuum to the electrical outlet
2. Unwind the cord from the vacuum
3. Pick up the pronged end of the cord
4. Align the prongs with the corresponding holes in the outlet
5. Insert the prongs securely into the outlet

Before teaching the task, the instructor must know which skills the student can and cannot perform. This information is determined by asking the student to perform the task without any assistance. The instructor observes the student and records which of the listed steps of the task he/she is able to complete. A "+" mark is recorded next to the steps which are independently completed and a "-" mark is noted to represent a student's inability to independently complete a step. Several observations are preferably made. The "+"s are totaled for every observation and this information becomes the baseline, or level at which the student performs independently (See Table 17). The baseline is used as the starting point for instruction and is the precise measurement of an individual's skill level in the particular task being measured.

Table 17

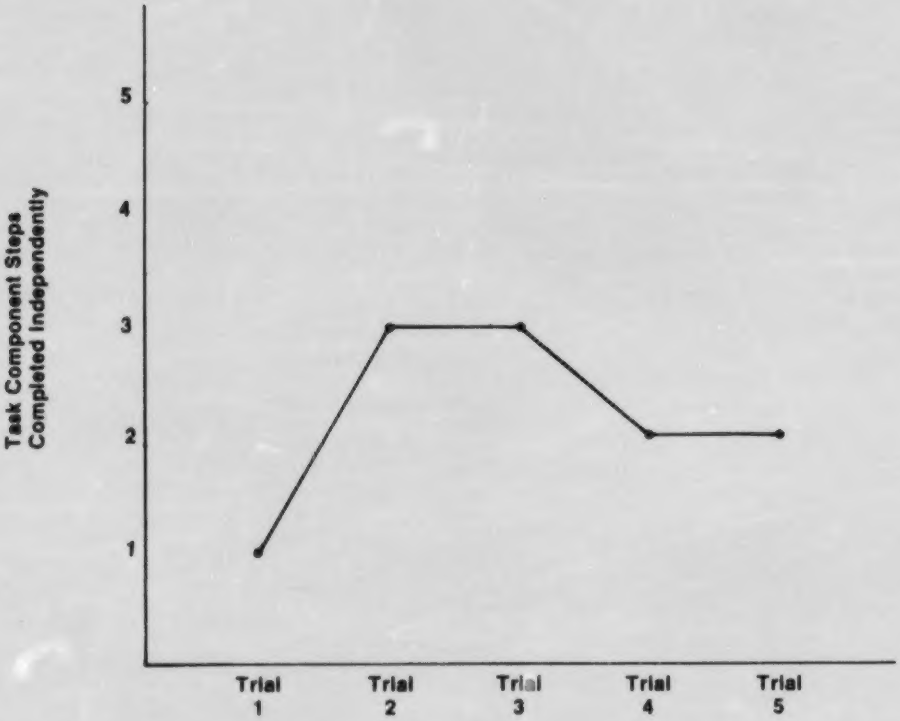
Baseline

Teacher: Susan
Student's Name: Clark Date: 8-26-80
Environment: Snack Bar Area
Instructional Cue: "Plug in the vacuum"

	Program	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5								
Task Components	Push the vacuum to the electrical outlet	—	+	—	+	—								
	Unwind the cord from the vacuum	—	—	+	—	—								
	Pick up the pronged end of the cord	+	—	+	—	—								
	Align the prongs with the corresponding holes in the outlet	—	+	—	—	+								
	Insert the prongs securely into the outlet	—	+	+	+	+								
	Number of Independents	1	3	3	2	2								

Figure 1

Graph Showing the Baseline



Business Contacts

by Susan Teas and Collette Erickson

Instruction in the vocational training program takes place in the school workshop and, more importantly, in the community. The goal of independent working and living in the community is better met by placement and training in community work sites. The educational philosophy is that a moderately or severely handicapped individual will have a better quality of life if he/she can be independent in a community vocational setting with other non-handicapped workers. It cannot be assumed that skills learned in the school setting will automatically transfer to a business or community setting.

Know the Working Community

The first step in establishing business contacts is to know the community in general. By contacting the Chamber of Commerce, a manufacturing and industrial list can be obtained which will specify the company, its owner or manager, the address and phone number, and most importantly, the goods made or distributed and the number of employees in the firm. A second source of jobs available can be found in the state directory of non-profit and volunteer organizations. Those located in a specific community are usually listed together under the county headings. A third source of jobs available is the local newspaper want ad section. High turnover jobs advertised frequently suggest skill levels most easily attainable by a mentally handicapped worker. A fourth source of potential training sites is found in the telephone directory. The motel/hotel listings, restaurants, and janitorial agencies advertise locations and services offered.

Who to Contact First

In many cases it is easier to contact employers who have worked with the program in the past. However, every year new training sponsors will be utilized who have never worked with the program or new employers who were transferred into an existing training site. Also, which business(es) to contact depends on the needs of the vocational training program. For example, if a new food service site is needed, both the want ads and the yellow pages are a good source for the information needed to make the contact. For establishing a new training site in a manufacturing or industrial site, the list obtained from the Chamber of Commerce may be more helpful.

Who Makes the Contact

The person making the initial business contact should have strong personal characteristics such as a warm personality, an easy-going disposition, common sense, intelligence, the ability to think abstractly, a calm and realistic manner of expression, and most importantly, enthusiasm. The individual making the initial business contact must (a) be sure of himself/herself, (b) know the goals and objectives of the program, (c) understand the needs and abilities of the students, (d) be willing to share concerns and accept others' concerns, and (e) be enthusiastic about the job and the philosophy of the training program.

Initial and Follow-up Contacts--What to Say

Initial contacts are made by phone. Perhaps the most important information to convey over the phone is: who you are, your job title, and that you would like to discuss the vocational program with the manager/owner. You could say, "I would like to talk with you about what we can do for you and what you can do for us." The complete explanation of the program and the nature of the personal contact conversation will depend on the degree of responsiveness of the business personnel and their need for further explanation.

At the initial personal contact, briefly explain the program to the business representative. Give him/her the Employers' Manual (See Appendix B) which explains the program, and go over it with him/her. Explain what the program is, how it operates, and select a few major advantages of hiring or training a student from the school. Some of those advantages are listed below.

1. The student will be gaining functional experiences in the working world. Alternatives for the student in the future would probably at best include shelter workshop employment if the student was not given an opportunity to receive non-sheltered training.
2. The student will be able to socialize with normal workers which will aid in the growth of the student emotionally.
3. The worker will be learning a skill which is the first step to learning many skills.
4. All that is needed from the business itself is the working space and materials.
5. The students are mentally disabled. That means that academically they are unable to read, write, or compute mathematically with a high degree of sophistication. But the students are able, with varying degrees of training, to learn to do a job as well as a normal worker can do the job.
6. The student will not be a physical threat to the business. There is normally no hostility or disruptive behavior present to cause concern. Behavior problems are usually limited to immaturity, self-reliance due to overprotectiveness, and lack of experience.
7. Work will not be taken away from any employee, nor will an employee's position be displaced by a student worker.
8. The school personnel will supervise the learning of skills and will continue supervision as needed until both the school and the business agrees that the student is able to be gradually weaned from school supervision to business supervision.
9. No employee/employer relationship exists. Any or all reinforcers, such as earnings, will be handled or originated by the school staff.

10. Never is the training program considered a contract. Nothing is final. Changes can be made immediately so that a business need not feel locked into a situation they would like to terminate.

How to Establish the Training Site

Once an employer has shown interest in becoming involved with the training program, the next step is to visit the work areas and observe the jobs that are being done. As the plant tour is taking place, it is advised to identify tasks you feel could be easily taught or used for training purposes.

The student must be personally interviewed before final plans are made for a training position. The interview includes meeting the supervisor, manager or plant owner, seeing the work location, and meeting the co-workers.

Prior to placing the student at a training site, the co-workers and plant supervisors must be aware of the philosophy of the program and the abilities, and perhaps disabilities, of the student. Helpful information to share at this time would be a resume of the worker's experiences. A description of previous jobs, and charts showing progress in production and attending ability is very helpful in explaining the worker's potential. If a resume is not available, giving the student worker an opportunity to try some part of the job would also be helpful.

Share with the business employees the Memo for Employers (See Table 18). Discuss major points of the memo with them. It may be helpful to give examples of businesses that have been training sites in the past and encourage the manager to contact those businesses and share concerns with them.

It is important that the job environment be prepared as well as the student is prepared. Open and direct communication with supervisors, managers, and most importantly co-workers is essential. Nothing in the working environment should be allowed to create a problem for the student or for the program in general. Problems can originate from misunderstandings and misconceptions of the goals and objectives of the training program. The workers who spend working hours side-by-side with the student must be supportive and understanding of how to communicate with the student, how to work with the student, and what is expected of the student worker. The supervisor, co-workers, plant administration, school staff, and parents are all supporting influences for the student. Working goals are to reinforce cooperative attitudes, develop understanding, and develop skills on the part of fellow employees for working more effectively with the student on the job or on coffee breaks.

Social and vocational skills are emphasized since both areas will contribute to job success. Social break time skills are worked on during those appropriate break times with the aid and cooperation of fellow employees while work skills are taught through examples of co-workers and directions from the plant supervisor.

An employee advocate is requested of each business establishment working with a student. The role of advocate is determined by the needs of each student. An advocate is a co-worker who has offered to be a friend, to answer questions asked by the student worker, to provide social contacts during coffee breaks, and to relate job information on a one-to-one basis with the worker. The advocate has proven to be one of the most influential persons for the worker. The advocate teaches through being an example of a good employee.

Table 18

Memo for Employers*

Because you have accepted a human being who happens to be mentally handicapped, and who can become your devoted, loyal, hard-working employee . .

DO talk to him or her on a person-to-person level, as you would to anyone else; only try to be more specific, more precise, and crystal-clear. Don't "talk down" as though he/she were a small tot!

DO speak in concrete terms, not abstractions. If, for example, you want him or her to put the work materials away, show him or her exactly where "away" is.

DO demonstrate what you want him or her to do; don't just tell him or her.

DO show where things are--time clock, lockers, restroom, cafeteria or lunch areas, drinking fountain, supply room--same as you would for any new employee. Only DO take your time, don't rush, and be sure he/she understands.

DO ask a question now and then to make sure he or she is keeping up with you. "Now show me your work station," or "Show me what you are doing," or any kind of question that checks his or her understanding.

DO introduce him or her to fellow employees and supervisors. He/she may seem a bit withdrawn at first, but will warm up once he/she gets to know people. He or she will warm up faster if one co-worker at first will be a friend--answer questions and listen to problems.

DO be ready to give a guiding hand should new situations and new problems arise which he/she needs aid in coping with.

DO make note of his or her on-the-job strong points. When he/she turns out to be a good employee, pass that word on to other employers that it can be good business to work with qualified mentally handicapped workers.

* *Revised from the President's Committee on Employment of the Handicapped*

Getting Started

Prior to beginning with the student at a work site, the trainers (classroom teacher and training aide) must know the job, the expectations of the job, and the routine established within the working environment. This knowledge must be obtained prior to working with a student and may take as little as one visit to the training site.

As soon as permission is obtained by the business personnel to go ahead, the teacher and student work side-by-side at the work site learning the job skills. These skills include completing the job correctly, finding the break room, taking break at the appropriate time, socializing with co-workers, reporting to the supervisor as needed, and learning the check-in and check-out procedures.

At this time, the Training Agreement is written and signed by the business personnel and school staff (See Table 19). The agreement needs to be understood, agreed to, and discussed openly by both the business training site and the school.

Follow-up

Continual communication between the school staff and training site personnel is essential. Daily communication can pinpoint aspects of a student's job performance and interpersonal relationships at work that may need increased attention. This daily communication can be in the form of telephone calls, personal contacts, written notes, or direct observation. No matter what communication channels are used, the important fact is that it occurs consistently, and that all individuals concerned are satisfied with the implementation of the program.

Table 19

Training Agreement

This agreement is made and entered into (date) by and between (training site) and Willson-Beardshear School, Ames, Iowa.

It is the mutual desire of the parties of this agreement to provide on-the-job training for (student) for the purpose of gaining practical knowledge and experience in the occupation of (job title/description) from (beginning date) to (ending date).

(training site) agrees as follows:

1. To provide an experienced employee who will act as (student's) advocate.
2. To provide the equipment, tools, materials, and/or special clothing necessary.
3. To provide a written evaluation of (student's) performance as requested by the Willson-Beardshear staff.
4. To abide by school holidays, excusing (student) from training on the following days: (dates)
5. To notify insuror for purposes of coverage under the Worker's Compensation Law and to provide prompt first aid and medical attention as needed in case of an injury on the work site.
6. To alter (student's) work schedule or assignments, with the school staff's cooperation, as needed.

Willson-Beardshear School agrees as follows:

1. To provide a training aide to supervise, counsel, and instruct.
2. To maintain and be responsible for all records relative to (student's) performance.
3. To provide all benefits to (student).
4. To provide and/or arrange for transportation to and from (training site).
5. To maintain close and open communication with all (training site's) personnel.
6. To alter (student's) work schedule or assignments, with (training site's) cooperation, as needed.

It is recognized that this training agreement can be terminated immediately based upon the request of (student), (his/her) parents, the training site personnel, or the school staff.

Willson-Beardshear School	(training site)
BY: __________	BY: __________
TITLE: __________	TITLE: __________
DATE: __________	DATE: __________

The Business Card File

Table 20 is an example of a card used to record information made after a business contact. The form contains the name, address, and telephone number of the business firm as well as the type of business. The contact person and his or her title, and other key individuals, should be recorded. The job description category can be filled out as generally or specifically as needed. Because the job descriptions at the Hach Company are so varied, one general statement is all that needs to be included on the card. Detailed job descriptions are kept in the workshop files. The information on the card is to be used for reference purposes by the staff. Whatever skills that are required should be included under the job descriptions category. The employer/supervisor/co-worker reaction category also can be completed generally or in detail. In the case of Hach, the overall reaction by everyone was excellent. In order to precisely describe all reactions of interest of all contact individuals, ten cards would need to be used. Again, the information is for the benefit of those working in the vocational program. The information that is essential for the staff to make program decisions is all that needs to be on the card.

This form is printed on firm paper (8½ x 11), cut in half, and filed alphabetically in a card file. Every firm or business that has been contacted is included in the file. All teachers, support staff, and consultant personnel have access to the business card file.

Table 20
Business Card

Business Name: Hach Company

Type of Business: Manufacturing

Address: Dayton Road

Telephone: 233-2433

Contact Person/Title: Bruce, Industrial Relations Manager; Wayne, Supervisor in Plastics Department; Larry; Ralph H., Vice President in charge of Chemical Production; Rick, Assistant Supervisor in Plastics.

Job Description: Various types of productions of water treatment analysis equipment site used in on-the-job training, exploration, and sub-contract work

Employer/Supervisor/Co-Worker Reaction: excellent!

Job Skill Inventory

The job skill inventory provides a method of analyzing a job site to provide information regarding longitudinal programming within the vocational training model. By looking at all facets of a business or job site, not just the work station itself, functional curriculum needs are identified which enable teaching staff to adequately prepare a student worker to be independent and productive. The worker's success is a function of multiple factors which include the job itself, the social environment, and the physical environment. Because skills cannot be expected to transfer from the teaching site to the work site, instruction within the business site is preferred to instruction within a school workshop setting. Factors which cannot be duplicated, such as co-worker attitudes and reactions and the noise level within the working area, must be encountered and worked with at the business site. Therefore, conducting an inventory of the entire business site to identify all the job skills required provides a basis for curriculum development of functional objectives in the vocational domain.

The following is a job skill inventory of a manufacturing plant in Ames, Iowa. For an outline of the Job Skill Inventory, see Table 21, page 57. The inventory, conducted prior to on-the-job training placement, provided the school staff with information relative to instruction needs as they relate to the entire training experience.

I. General Information
   A. Reasons why severely handicapped students are considered for this job.

      Bourns Incorporated of Ames, Iowa, is a manufacturing, testing, and sales outlet for variable resistors used in a wide range of electronic devices. The printing and testing department of Bourns is receptive to providing on-the-job training for the mentally handicapped students at Willson-Beardshear School.

      Prior to on-the-job placement, a piece of Bourns testing equipment and supplies of parts will be sent to Willson-Beardshear for the school workshop. Once production quantities and quality of work is at an acceptable level, Bourns will place one student at a time in their testing department. In addition, several other aspects are considered and evaluated in this placement:

      1. The location of Bourns is such that the business site is accessible by public school bus, car pooling, and private transportation.
      2. The work schedule is repetitive throughout the work week, thus providing the structure needed. Free time is limited to the ten minute coffee break spent in the lunch area which is close to the work station.
      3. Skills required to successfully test resistor parts may be learned through the workshop experience with supervisory training and on-the-job

supervision at the job site. Work site interactions will be supervised by a volunteer co-worker known as an employee advocate and the project's training aide. Together the advocate and training aide will ensure that the student performs the job to the satisfaction of the business site.

4. Task related judgements are limited. Equipment used in testing parts is guaged to make decisions for the worker. The students must be trained to place the part where the machine directs which is a simplified process.
5. Because the task of testing resistors is repetitive in nature, it may be an unattractive job for many workers at Bourns. This factor might increase the handicapped person's employment opportunity within the company.

B. A general description of the job.

Willson-Beardshear students will be placed at a training station in the printing and testing department. The student's job will be to test the resistor parts manufactured and printed by the corporation. As the student enters the building, he/she will move directly to the printing and testing department and report to the employee advocate. The advocate will assign the student to the work station and weigh out the resistor parts the student will be responsible to test. In case of any personal or work related need, the student is to leave the work station and request assistance from the employee advocate.

Once seated at the work station, the student will empty the bag of resistor parts to be tested on the table. The parts vary in size and shape, however, none are larger than a dime. Once laid flat on the table, the student will turn them over so that an inked design is visible on the parts, while the plain white side is against the table surface. The student then will switch the testing equipment to "on", and hold two pencil shaped probes attached to the equipment, one in each hand. At this point, the student will be ready to test the resistor parts. This is done by placing the probes on two inked circles. It does not matter which probe enters which circle, only that they are within the circle area. Attached to the table are seven colored lights. Directly in front of each light is a corresponding hole. As the probes are placed on the inked circles and held there briefly, a single light comes on indicating the hole the part is to be placed in. The job is to be repeated until all parts are tested and placed within the proper holes. The student then will leave the work site and approach the advocate for additional resistor parts. In the event that two lights come on during the testing procedure, the student is to remove the probes momentarily from the part and return them again until one light remains on consistently. The norm for workers testing resistor parts is 1000 an hour. One hundred percent accuracy is a must in the testing department. An error may mean all the parts in that bag need to be retested. Therefore, it is imperative student workers be taught to remain attentive and responsible to their assigned task.

C. A general description of the work setting.

Bourns manufacturing is housed in a very large one-story facility on the fringe of the city of Ames. The students will use the employees' and visitors' entrance, pass through several double doors, and walk through a production area for approximately one half block. A left turn will take the student about 15 yards, again through several double doors, and into the testing department. This room has dimensions of 70 feet by 75. One hundred and twenty hourly personnel are employed throughout a twenty-four hour period, in addition to six technicians and three foremen. Approximately 40 employees work during each of three shifts.

The student work station will be a long narrow table divided into ten individual testing sites. Co-workers are all female. Equipment in the room is arranged in rows. The student's testing table will be in the center of the room, close to the department entrance. Noise from the printing machines is loud, although a public address system plays listening music at an audible level throughout the day.

D. A general description of the social environment.

The job of resistor part tester involves working along-side other employees. The co-worker the student will usually relate to in regard to task completion is the employee advocate. Personal relationships between co-workers are to be pursued during the breaks allotted each employee. Since work stations are in close proximity to each other, it would be helpful if the student could maintain a positive working relationship with others.

Students should be aware of how to respond to simple directions from the employee advocate, vocational training assistant, and department supervisor. Compliance to all directions should be a student behavioral objective. It is the responsibility of student workers to inform Bourns staff should illness or difficulty arise to make attendance at work impossible.

II. Specific Skill Requirements of the Job Under Analysis

Several specific skills are required of a student in order to test resistor parts at Bourns. One must have the basic physical and sensory abilities of sight and fine motor movement of both hands. The student must be able to communicate needs to the employee advocate, training aide, and supervisor. Interpersonal communication skills will be taught in conjunction with co-worker contacts made during breaks and related social experiences. It is important that the student verbally or non-verbally acknowledge understanding work related messages and express personal and task oriented information. Close proximity of co-workers demands hygenic capabilities, at least on a toilet-trained level. It is mandatory that the testing equipment be turned on by the student employee, and that both probes can be securely held and directed in the student's hands. There are no academic skills required to successfully complete the task.

III. Supportive Skills and Other Information Required

In addition to the specific skills required of a student working in the testing department, other supportive skills are required. The student must be able to locate the advocate to communicate needs and must be able to identify quarters, dimes, and nickels to use in the vending machines. Safety glasses must be worn if prescription lenses are not. Shoes must have an enclosed toe. A safety badge is issued to each worker and is expected to be worn while in the building. Informed consent and legal requirements are included in a mutual training agreement signed by both the school and Bourns staff.

Table 21

An Outline of the Job Skill Inventory

- I. General Information
  - A. Reasons why severely handicapped students are considered for this job
  - B. A general description of the job
  - C. A general description of the work setting
  - D. A general description of the social environment
    - 1. Information related to fellow workers
    - 2. Information related to supervision
    - 3. Information related to special contingencies of the employer
- II. Specific Skill Requirements of the Job Under Analysis
  - A. A listing of the basic physical/sensory motor skills required
  - B. A listing of the basic interpersonal skills required
  - C. A listing of the basic language skills (verbal and non-verbal) required
  - D. A listing of the basic functional academic skills required
  - E. A listing of the basic machine and tool skills required
  - F. A listing of the basic hygienic skills required
- III. Supportive Skills and Other Information Required
  - A. Transportation skills required
  - B. Skills related to work preparation
  - C. Basic money management skills required
  - D. Time telling and time judgment skills required
  - E. Health code requirements
  - F. Informed consent and legal requirements

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Training Sites

by Susan Teas

In order to determine which business establishments will be training sites for the vocational program, several criteria apply. First, the business must be receptive and supportive of the goals and philosophy of the training model. Second, the training site should include several workers completing the same or similar job as that chosen for the work station, and/or the task chosen should be one found in a number of other job locations. The training site, thirdly, should offer exposure to non-handicapped workers and preferably, opportunities for the mentally handicapped worker to produce side-by-side non-handicapped workers.

During the 1979-80 school year, five on-the-job training sites were used by the students and staff at Willson-Beardshear School. The five sites were:

1. Bourns Company Incorporated
2. Hach Company
3. Industrial Processing Company
4. Memorial Union Cafeteria
5. Scheman Center Building

Bourns Company Incorporated

Bourns Company manufactures and designs precision electronics. The plant employs approximately 600 employees. The manufacturing process involves on-going production of thousands of electronic units. Therefore, the same type of job is available for long periods of time.

The work station at Bourns is in the Cermet Printing Department. The major task of this department is testing the resistance in circuitry chips used in electronic parts. The task analysis of the job is to insert two probes (pencil-like units) into two small holes in the chip, read the resistance measurement, and place the chip in the correct box. The job requires working independently on a line with other operators. The production norm for the job is completing 800 parts per hour on a dial machine and completing 1,000 parts per hour on a light-coded machine. The quality standards acceptable are 100 percent correct. Parts cannot be run through the process if errors are present.

A circuitry chip resistance testing machine is located in the school workshop on a continuous contract basis. The job skills are taught at school to students ages 16 through 21, in the Exploration phase of the program, or to students ages 18 or over in preparation for On-the-job Training at Bourns. The production records from school of future Bourns trainees are shared with the Bourns personnel.

The students that work at Bourns can use time cards, clocking in with a time clock, however, initially the system was not used due to logistical problems. The computerized time clock system was not programmed to disregard the worker's time clock and so student time cards had to be hand pulled prior to being processed. It must be noted that none of the workers are on any of the training sites' payrolls. Employer/employee relationships do not exist with the training sites until the transition year.

Every employee at Bourns must wear an identification card. The student is issued a card with his/her picture and name. The card is the responsibility of the worker, and he/she has to wear it daily in order to check in.

Working hours are from 9:00 a.m. to 12:00 noon daily. Because the 9:00 hour is not check-in time for other employees, the worker has to check in through the front office. This routine is not the same for non-handicapped workers. Only during normal shift times do the employees check in and out through the employees' entrance.

The coat room and break room are used by the student worker. He/she is responsible for hanging up his/her coat and for locating it at the end of the working day. Opportunities for socializing occur during the ten minute coffee break. During the break, the employee advocate and other co-workers make special attempts to include the student worker in conversations with others.

During work time, it is acceptable to converse with fellow workers. However, it is important to continue working at the same time. Specific instruction in the art of working and talking is emphasized. With the aid of the co-workers on the line, work skills are refined to equal those of the non-handicapped worker.

Employees at Bourns are paid once a week, therefore, the reinforcement schedule for the student worker coincides with the employees'. Because it is important to work for money, paychecks are given to the student by the Bourns supervisor the same day other employees receive theirs. The paychecks are issued from a special school fund used for incentives and reinforcements.

Prior to work, the work materials are gathered for the student by the advocate, supervisor, or another co-worker. Because the circuitry chips come in bags of the same resistance, and because the machines have to be set to measure that particular resistance, that part of the job is not assigned presently to the student worker. Completed materials are checked for errors by line supervisors.

Supervision on the job is handled initially by the classroom teacher and the training aide. Gradually supervision is weaned away from the school and given to the business advocate and floor supervisor. Supervision is not needed on a one-to-one basis. The advocate and floor supervisor are in the same general area but do not need to be beside the worker because of the worker's independent abilities.

Two students completed on-the-job training at Bourns during the 1979-80 school year. A moderately mentally disabled nineteen year old male and a moderately mentally disabled twenty year old female satisfactorily met the training goals and objectives of their individual on-the-job training program.

Hach Company

Hach Company manufactures water and waste-water analysis equipment and hires approximately 150 employees. The manufacturing process involves a large variety of short run items.

The work station at Hach is in the Plastics Department on the second floor of the plant; an open area with several large pieces of equipment, several work areas, and with a dozen employees doing various jobs.

The work varies in that once a contract for a hundred parts is completed, it may not be needed again for several weeks or months. The job skills in the Plastics Department include two to ten step assemblies, such as operating a drill press, working with molders, running air driven equipment, applying glue and paint, measuring, and cutting.

One female, aged twenty-one, completed on-the-job training at the Hach Company. She worked in the Plastics Department with approximately twelve co-workers under the immediate supervision of one male and his assistant. Working in the Exploration phase of Project A.M.E.S., eight moderately mentally handicapped trainable students spent working field trips throughout the spring of the year working in the Plastics Department two days each week.

The job tasks at Hach are directly assigned by the floor supervisor with the aid of the school personnel. Usually the supervisor instructs the school staff in how to complete the job and the staff in turn instructs the student. It is advisable, and often possible, for the supervisors to teach the task to the student worker. All materials and supplies are located and returned to the correct location by the student worker. For supplies not found in the work area, the student requests materials from the supervisor or from the co-workers in the area.

Hach Company is located about 2.5 miles from the school. In one case, the school bus dropped a student off at the door before the bus came to school. The other students reported to school first, and then were driven to work by the school staff. City transit connections were unable to be made.

The workers at Hach Company do not punch time clocks, but rather have one time/task card for each job completed. These cards are filed daily for each job a worker completes. No special considerations are given the student workers. Each is responsible to go to break, make snack choices, converse or relax with others, and complete all break activities within ten minutes. Student workers wear hard soled, comfortable shoes and safety glasses, or glasses with hard lenses as required by the safety regulations of the plant.

Working hours for on-the-job training and for exploration are from 9:00 a.m. to 12:00 noon, with a ten minute break early in the morning. The normal employee's shift begins at 7:00 a.m. and the morning break is at approximately 9:30 a.m. In order to take a break with co-workers, the student workers would have to break soon after they begin work, thus making the work day unequally divided for them.

During work time, it is acceptable to converse with co-workers only if the work routine is not broken and conversing is not disruptive to the workers' production. Because of the physical environment, conversation is not easy. The noise level at Hach is quite high and each worker has a general area in which to work that is usually not within earshot of other workers.

Employees at Hach are paid every other Friday, so student workers in on-the-job training at Hach are also paid every other Friday. The paychecks originate from the school, however, the supervisor hands out the paycheck with the other employees' paychecks. Wages earned depend on the productivity of each student worker. Because all items produced in on-the-job training are on a contract basis with the Work Activities Center (Project A.M.E.S.), wages for the contracts completed are paid to the school, and the school in turn pays the student worker. In no case is there an employer/employee relationship existing with the business and the student prior to the transition year.

Supervision on the job is handled initially by school personnel in cooperation with the floor supervisor. As a student demonstrates job acquisition, supervision becomes the responsibility of the plant supervisor. The need for this assistance is variable. Often, the student worker is able to complete the job without any need for assistance during the entire working day. In other cases, teaching a new task requires approximately fifteen minutes of the supervisor's time. The student worker in on-the-job training at Hach was a very independent worker both productively and socially.

Industrial Processing Company

Industrial Processing manufactures industrial chromeplating, an electroless nickle honing operation. This company employs twenty-eight persons, including two floor supervisors.

Two job stations at Industrial Processing have been used. The first was racking parts onto wires which were then processed through the chromeplating process. The second site involved racking metal parts onto large racks which then went into large vats through the chromeplating process. Both jobs involved short run contracts of materials involving the same general process. The plant works with several contracts in small numbers. Therefore, the job description remains the same only as long as the number of parts in the contract last.

The physical plant is composed of large machinery and materials which vary in size and shape. Different machines are used to apply various degrees of chromeplating. The plant is often cold during the winter months mainly because the large doors are often open for loading and unloading materials.

The business is located approximately one mile from the school, and transportation to and from the location is the responsibility of the school staff. In one instance, the school bus dropped the student off at the door of Industrial Processing after dropping other students off at school.

The first job completed at Industrial Processing was air nozzle racking. This involved counting out fifteen nozzles, obtaining a precut wire, stringing one nozzle on the wire and twisting the wire securely, stringing the other 14 nozzles onto the wire, making a loop at the top, and twisting the wire closed securely. The norm production rate for the job was 30 wires completed per hour. The completed wire went on to a large rack of 20. When 20 wires were placed on the rack, the rack went into a preparation solution.

The workers at Industrial Processing check in with time cards and keep their time cards in the same holder as the co-workers. Working hours are from 9:00 a.m. to 12:00 noon with a ten minute break at 10:00. Each worker has a locker for his thermos and/or coat. It is advisable, because of the probability of getting soiled, to wear a coverall over school clothes, and a working pair of shoes.

The second job involved placing various sized metal pieces onto a large rack. In this job, pinching open the fasteners or holders is the usual routine with small items. With large pieces to rack, lifting the item onto a hook is the usual job requirement. Also, at the second job station, the worker takes chromeplated pieces off the racks, wipes them clean, and checks the quality of the completed products.

Co-worker interaction during working hours is usually limited to one or two supervisor contacts during the work day. Initial supervision and teaching of the task is done by the school staff. Once the job is learned, the training aide offers assistance only as needed. At least once a day, the school staff observes and records performance information on a student's work productivity and work quality. However, if more one-to-one supervision is needed or requested, the school staff is able to provide all that is asked for.

The on-the-job training workers during the school year included two male moderately mentally handicapped individuals, ages eighteen and nineteen. Both workers proved to be independent to the point where supervision, other than that given non-handicapped workers, was not needed.

Memorial Union Cafeteria, Pastry Department

The Memorial Union Cafeteria is at Iowa State University. The employees of the cafeteria are not employees of the university. The cafeteria is a privately operated business. Within the pastry department, three full-time employees work.

Duties in the pastry department include (a) following a recipe to make batter; (b) filling pans with measured batter; (c) operating machinery which make pie crusts, muffins, and buns; (d) buttering pans and buttering crusts; (e) cutting pies and cakes; (f) cleaning and putting equipment away; (g) setting up the food line in the cafeteria; (h) removing baked goods from the oven; and (i) cleaning up after baking. The job tasks in the pastry department vary depending on the order for the day. Therefore, the student is exposed to and learns many different tasks.

Clothing requirements include wearing a fresh uniform daily. When the student reported to work each morning, she chose a fresh uniform from the clothing room, changed from her school clothes to her work uniform, locked her school clothes and purse in her locker, and punched in for work on her time card.

The student worker reported at 9:00 a.m. and checked out at 12:00, taking a break only when time allowed. Assigned duties were completed before break was taken. The worker wore comfortable work shoes, especially needed when there was no time for a break.

Supervision and teaching of the tasks takes place during the first week of on-the-job training by the classroom teacher. Supervision beyond the first week is the responsibility of the training aide, but is done mainly by the three co-workers. Job tasks were quickly mastered and the first worker in on-the-job training became an integral part of the pastry department within a short period of time.

The Memorial Union Cafeteria is approximately 3.5 miles from the school. Transportation to and from the work site was the responsibility of the training assistant and classroom teacher. City transit connections were not used because of scheduling difficulties.

Scheman Center Building

The convention center at Iowa State University is called the Scheman Center Building. An on-the-job training site in a snack bar area was selected. This position was held by a severely/profoundly mentally handicapped twenty-year-old male. The Scheman Center building employs a number of individuals, however, in the snack bar area, usually only customers are available for interaction; and supervision is entirely the responsibility of the school staff.

The job description included clearing the table of debris, washing the tables and chairs, emptying the ashtrays and trash, moving the tables and chairs for vacuuming, vacuuming, and moving the tables and chairs to their original positions. The training period was from 1:00 to approximately 3:00 p.m. daily. Initial teaching of the task was done by the classroom teacher after task analysis of the job requirements was completed by the teacher, training aide, and work experience coordinator. After initial teaching of the tasks, the training aide assumed daily supervision and teaching of the program. On every third day, the classroom teacher or her aide provided additional assistance.

In addition to the janitorial training site at the snack bar, students ranging in age from six through fifteen were involved in exploration activities on the first floor of the Scheman Center. The task assigned for exploration was a volunteer job involving stuffing convention folders. A convention folder is a two pocket folder containing seven items. The items placed in the pockets include three sheets of stationery, a campus map, and three general brochures. The students on exploration worked one day per week, completing enough folders to keep the convention center adequately supplied.

Non-handicapped interactions and communications were limited to those few secretaries and staff who were in and out of the work area. The best opportunity for interaction was on days when several conventions were in the building. Then socialization skills were emphasized and instructional opportunities were abundant.

The Scheman Center Building is located approximately 2.5 miles from the school. The student in the on-the-job training placement was picked up at school by the training assistant and dropped off at his home after work was done. The students on exploration rode the school bus to and from the training site.

Summer Employment

During the summer months (June, July, and August, 1980), nine students were either employees of, or trainees in a variety of business establishments. Of the nine, one student was a 1980 school graduate entering her first placement in competitive employment. Students ranged in age from 16 through 21, and in handicapping conditions from moderately to severely/profoundly mentally handicapped. Table 22 provides information regarding the student's age and handicap, the business location, job description, dates of employment or training, wages earned, and funding source.

Through the Job Service of Ames and Iowa Comprehensive Manpower, three summer youth employment (CETA) slots were located; one at a day care center, a second at a nursing home, and the third at the hospital.

Five training sites were located at businesses within Ames which had worked with Project A.M.E.S. during the school year. Personnel from these businesses were familiar with the training program and the students. The business establishments provided the work space, work materials, and training supervision. In addition, the project's training aide visited each work station on a schedule of at least two times per week. Reinforcement in the form of a check issued every payday or in the form of an incentive such as money to use in the vending machine was the responsibility of Project A.M.E.S. staff.

The summer work program included nine workers and one training aide. The work experience coordinator, school principal, and senior level classroom teacher were able to be reached by phone in order to communicate progress or problems encountered during the training programs. The training programs were written by the classroom teacher before school was out, and was implemented by the training aide during the summer. The CETA slots were supervised by the business supervisors and by the Project's training aide.

Table 22

1980 Summer Employment

Employee	Employer or Training Site	Dates	Hours	Earnings/Funding Source
*Karen Age 21 **MDT	**Land O'Lakes Turkey Division:** Line worker; repositions the turkeys.	June 23	7:00 A.M. to 4:00 P.M.	$3.85 per hour/ Turkey Division
Clark Age 20 ***S/P	**Scheman Center Building:** Janitor in the snack bar area; clearing and cleaning tables and chairs and vacuuming.	June 2 through July 11	9:00 A.M. to 10:30 A.M.	$15.00 total earned/ Project A.M.E.S., Reinforcement System
Bill Age 20 MDT	**Madrid Home for the Aging:** Landscaping; planting flowers, pulling weeds, watering lawns and gardens, turning and clearing soil, trimming lawns.	June 9 through August 8	8:00 A.M. to 12:00 A.M.	$80.00 total earned/ Project A.M.E.S., Reinforcement System
Mark Age 19 MDT	**Bourns Company:** Cermet Printing Department; testing resistance in circuitry chips used in electronic parts.	June 2 through August 8	8:50 A.M. to 12:10 A.M.	$174.68 total earned/ Project A.M.E.S., Reinforcement System

Employee	Employer or Training Site	Dates	Hours	Earnings/Funding Source
John Age 17 MDT	**Hach Company:** Plastics Department; assembling kits, operating air-driven equipment and machinery.	June 2 through August 8	8:45 A.M. to 12:10 A.M.	$82.50 total earned/ Project A.M.E.S., Reinforcement System
Lane Age 17 MDT	**Hach Company:** Plastics Department; assembling kits, operating air-driven equipment and machinery.	June 2 through August 8	8:45 A.M. to 12:10 A.M.	$82.50 total earned/ Project A.M.E.S., Reinforcement System
Brenda Age 17 MDT	**Mary Greeley Hospital:** Cafeteria/Kitchen; cleaning tables, emptying ashtrays, cleaning serving bins, ice cream bins, meat counters, and desert trays.	June 9 through August 8	2:15 P.M. to 4:30 P.M.	$306.90/ CETA ($3.10/hr.)
Laura Age 17 S/P	**Scheman Center Building:** Collates and stuffs convention packets with seven different items.	July 14 through August 8	9:00 A.M. to 10:30 A.M.	$10.00 total earned/ Project A.M.E.S., Reinforcement System
Mary Age 16 MDT	**Edith Hale Day Care Center:** Supervises playground activities, supervises swimming, mops, sweeps, cleans sinks and bathrooms, sets and clears tables, fills dishwasher, sets up cots for naps.	June 3 through August 8	12:30 A.M. to 5:30 P.M.	$682.00/ CETA ($3.10/hr.)

* Karen is a 1980 school graduate working full time in competitive employment.

** MDT - Mentally Disabled Trainable.

*** S/P - Severely/Profoundly Handicapped.

Wages

by Susan Teas

Whether or not a student is eligible to earn wages from sources other than school reinforcement funds, depends on (a) the student's age, (b) the student's status such as employee or trainee, and (c) the student's productivity. Students doing subcontract work on goods which move across state lines must be at least 16 years of age. A student under the age of 16 cannot work on a subcontract, nor can he or she be in the immediate vicinity of the work being done. Therefore, only 16 year-olds and older can earn wages from subcontracts. A student, aged 16 or over, placed in exploration or on-the-job training can work without pay as long as the employer (business firm) derives no immediate advantage from the activities of the trainee or student. Once it has been determined that a worker is producing at a profit to the business firm (such as producing at least 50 percent of the competitive norm or completing piece rate items which are of value to the business firm), he or she is entitled to earnings equivalent to his or her productivity.

Subcontract Earnings

A student working on a subcontract must be paid piece-rate or a percentage of the total value of that contract according to his or her productivity. From the purchase order enclosed with each payment to Project A.M.E.S. from a business firm, the value of the subcontract is listed. A portion of the total value is due every worker who performed part of that subcontract. Because Project A.M.E.S. is certified as a Work Activities Center, checks are written to the Project, and because each student is a client of the Work Activities Center, Project A.M.E.S. issues a check to the student. For example, Project A.M.E.S. was paid $40.00 for completing a lake sampler contract (See Table 23). The school workshop records show how many lake samplers were completed by each student. From those records, the student's productivity and earnings can be determined.

Earnings Piece-Rate

Trainees working at a manufacturing company can be paid according to their productivity. Each item tested at the work station has a value determined by the cost analysis system at the business firm. Therefore, for each item correctly processed, the trainee earns the pre-determined amount of money. Production data are recorded by the company supervisors and payment for that production is made to Project A.M.E.S. on a monthly basis for the total number of items processed. The amount due the trainee is itemized separate from other subcontract work on the purchase order which accompanies each check.

Earnings Depending on Productivity

When a worker is producing below 50 percent competitive norm (as determined by the company and/or Project A.M.E.S. staff) he or she is often not entitled to earnings because the cost of training (overhead, materials, instruction time, and supervision time) negates the value of the worker's productivity. When the worker becomes productive at a higher than 50 percent competitive norm rate for at least a two week period, he or she should then be entitled to that percentage of minimum wage.

For example, if Bill initially works at 30 percent of the competitive norm but gradually builds up his speed to where he is consistently above 50 percent, he is entitled to that percentage of minimum wage. For example:

On April 1 Bill produced at 71%
On April 2 Bill produced at 63%
On April 3 Bill produced at 58%
On April 4 Bill produced at 63%
On April 5 Bill produced at 73%

On April 8 Bill produced at 82%
On April 9 Bill produced at 74%
On April 10 Bill produced at 70%
On April 11 Bill produced at 69%
On April 12 Bill produced at 70%

Bill's average for the two week period in which he produced over 50 percent competitive norm is 69 percent. Therefore, Bill earned $2.14 per hour (69 percent of $3.10 per hour). Bill worked three hours per day for ten days which totals 30 hours. Thirty times $2.14 equals $64.20, which is the total Bill earned for two weeks of work.

Accounting Procedures

First, a check received from a business firm is deposited in the bank; and the deposit information is recorded according to the school's established accounting procedures.

Second, the purchase order is used to identify what the money is for (subcontract work, piece-rate work, or a worker's productivity). Third, the amount each worker is due is determined according to production records kept at school and/or at the business firm. Fourth, a check is written payable to the worker for the amount due.

Fifth, the check is mailed or given on pay day to the worker, and a form letter stating wages earned is sent to the parents/guardians, the social worker, and the Department of Social Services. Sixth, each worker's tally sheet (See Table 24) is recorded with the data, the amount of the check, and correspondence made.

Wages Earned

During the 1979-1980 school year, students at Willson-Beardshear School participated in their first paid working experiences. Table 25 provides a list of total earnings for those students ages 16 through 21.

Table 23

Example Subcontract Earnings

Lake sampler subcontract for $40.00:

Bill completed	482
John completed	301
Mary completed	16
Brenda completed	89
Lane completed	112
	1,000 lake samplers completed

Productivity:

Bill's productivity is	48% (482 is what percent of 1,000)
John's productivity is	30%
Mary's productivity is	2%
Brenda's productivity is	9%
Lane's productivity is	11%
	100%

Therefore:

Bill earned	$19.20 (48% of $40.00)
John earned	12.00
Mary earned	.80
Brenda earned	3.60
Lane earned	4.40
	$40.00 total money earned

Table 24

Worker's Tally Sheet

Social Security No. ____________________

Student's Name ____________________

Address ____________________

____

Telephone # ____________________

Social Worker's Name ____________________

Address ____________________

____

Telephone # ____________________

Parent's/ Guardian's Name ____________________

Address ____________________

____

Telephone # ____________________

Social Security Rep's Name ____________________

Address ____________________

____

Telephone # ____________________

Date	Amount of Check	Total Balance	Notification and/or Comments and Concerns		
			P/G	SW	SSR

Table 25

Wages Earned
School Year 1979-80

Mary	$108.82
Laura	19.98
Brenda	116.30
Karen	1,459.01
Lane	109.71
Karla	54.96
Bill	118.23
John	181.13
Michele	460.87
Mark	242.51

Record Keeping and Data Analysis

by Susan Teas

Data signifying the number of products completed, the number of errors in the completed products, the number of times the student misbehaved, the number of times intervention by the staff was needed, the number of times the student did not attend to task, and the number of times the student bothered a co-worker, are all examples of a student's performance that were regularly recorded during the 1979-1980 school year.

Program Format

Each student's vocational program is described on a Program Format sheet (See Table 26) which includes (a) names, dates, and locations; (b) a description of the work task; (c) the supervision or behavior modification program; (d) the reinforcement schedule; (e) the data collection method; (f) the criterion for success; and (g) supervisor/co-workers' interactions and opinions. In addition, the training assistant daily records anecdotal information regarding her impressions, conversations, and reactions obtained from interacting with business personnel. These narratives provide insight into feelings and thoughts not found in the production records. The anecdotal log and daily production records are used in the evaluation of the training program during its implementation.

Behavior Management

A simple form for data keeping is the Behavior Management form which is entered daily with the date, the time data is collected, the number of completed products, the number of errors or correctly completed items, and the percentage of productivity according to the norm in quantity and quality. The *norm* is the time it takes a non-handicapped individual to complete a specified number of items in the identical working environment doing the identical work task as the handicapped worker.

An example of a completed Behavior Management form is provided in Table 27. Since production rate and quality are both important for vocational success, these two variables are recorded daily. This information is used to make programming decisions.

Table 26

Program Format

Training Site Location: Industrial Processing
Time of Program: Daily, 8:45 a.m. to 12:00 noon
Supervisor's Name: Ray

Student's Name: Mark
Program Initiator: Diane
Date Program Began: 11-7-79
Ended: 2-13-80

1. **Job Description:** (describe behaviorally): "Air Nozzle Racking"--count 15 nozzles, take precut wire, string one nozzle on and twist wire around it securely, string other 14, make loop at top, twist wire, place completed wire on hook, when 20 wires are on hook, place the hook in the vat of solution.

2. **Type of Supervision Given/Behavior Change Procedures:** 11-7, one-to-one teacher and teacher's aide; 11-19, left alone for 1 hour; 11-27, left alone for two hours; 11-28, egg carton jig for counting added; 12-21, implementation of vertical jig; 1-7-80, incentive program began.

3. **Reinforcers:** Social and verbal praise, and a small school paycheck every other week; 1-7-80, incentive program - for every successful hour of production, Mark earns one token. fifteen tokens = record album, with percentage goals increasing daily.

4. **Data Collection Method:** Daily record number of nozzles racked and types and numbers of errors made. Attending data once a week more or less as needed.

5. **Criterion to Be Met for Success:** 80% competitive norm in quantity; 100% quality.

6. **Co-worker, Supervisor Reactions/Interactions:** Initial concern of Mark getting in the way and taking too much of supervisor's time. 12-18, "Mark has shown a lot of improvement." 2-5-80, "Mark is pleasant at work and well received by other employees." 2-13-80, "I think Mark could work here full time."

Table 27

Behavior Management

Name: Mark **Behavior Manager:** Diane

Behavior: Air Nozzle Racking - Industrial Processing

Measurement: 30/hour comp. Norm **Data Collection Schedule:** daily quantity & quality

Date	Data Collection Time Start Stop	Total Time	Quantity & Quality total #	correct #	Percent of Norm	Percent of Accuracy
11-7	9:00 - 12:00	3 hrs.	28 (one-to-one)		31%	learning
11-12	"	"	39 (worked independent)	36	43%	92%
11-14	"	"	34	30	38%	88%
11-15	"	"	20 (bad day - wire too short)	11	22%	55%
11-20	"	"	37	28	41%	76%
11-29	"	"	46	45	51%	98%
12-4	"	"	47	46	52%	98%
12-11	"	"	28	27	31%	96%
12-14	"	"	48	48	53%	100%
12-20	"	"	?? nozzles taken before count		-	-
12-21	"	"	no count - implementation of new jig-learning			
1-4	"	"	40	32	44%	80%
			implementation of incentive program			
1-7	9:30 - 12:00	2 1/2	42	42	56%	100%
1-10	9:00 - 12:00	3 hrs.	75	75	83%	100%
1-16	"	"	52	50	58%	95%
1-22	"	"	63	47	70%	75%
1-24	"	"	72	67	80%	93%
1-28	"	"	61 (no error count taken)	-	68%	-
2-1	"	"	44	42	73%	95%
2-6	"	"	65	53	72%	81%
2-7	"	"	65 (no error count taken)	-	72%	-
2-12	"	"	62 (no error count taken)	-	70%	-

Attending to Task

In addition to recording production information, the student's attending to task is recorded weekly and can be used in a comparison with daily production numbers or with a number of different work tasks the student has completed (See Table 28).

The analysis of the attending to task information can show (a) the type of job which interests the worker, (b) the time of day the worker is the most productive, (c) the day of the week the worker is the most productive, or (d) the influence of extenuating circumstances such as a Christmas outing planned for after work or a recent argument with a close friend.

Graphs

It is important to record both production information and attending to task information on graphs. A graph provides a pictorial representation of production improvements, plateaus, and/or declines. The graph can be used as a quick reference regarding a student's progress for everyone involved with a student's program (see Figure 2, page 69).

Table 28

Attending to Task

Mark - Industrial Processing

Date	Type of Work	Time	check every 30 seconds Intervals: = (is attending) - (not attending)	Total Time	Event Total	Per-cent
11-14	Air Nozzles	10:20		10 m	16	80%
11-30	Air Nozzles	9:20		10 m	17	85%
12-18	Air Nozzles	9:20		10 m	17	85%
1-23	Air Nozzles	11:35		10 m	20	100%
2-1	Air Nozzles	11:45		10 m	20	100%
2-8	Air Nozzles	9:45		10 m	19	95%
2-13	Air Nozzles	8:50		10 m	18	90%

Community Mobility Training: an Instructional Program Designed to Teach Moderately Mentally Disabled Students to Use Stores in Their Home Community

by: Joyce Powers, Speech Clinician; Bonnie Twedt, Educator of Moderately Disabled; Diane Larsen, Educator of Moderately Disabled; Carol Adams, School Social Worker; and Susan Teas, Work Experience Instructor.

Community Mobility Training

Professionals responsible for programming for moderately and severely handicapped individuals are becoming aware of the need to establish programs that are age-appropriate, functional, and based in natural settings. These programs must prepare students for community-based, semi-independent living (Brown, et al., 1979).

A major factor in preparing these individuals for community living is effective life skills training in the areas of travel, shopping, use of public services (e.g., post office, bank, library, etc.), and restaurants. Decisions concerning specific curricular content can be made most responsibly by considering the dimensions recommended by Brown, Falvey, et al. (1979). These dimensions include the following aspects:

1. Teacher preference
2. Administrator preference
3. Ancillary staff preference
4. Parent/guardian preference
5. Student preference
6. Unique student characteristics
7. Commercial publishers preference
8. Presumed logistical and practical realities
9. The number of environments
10. The number of occurrences
11. Social significance
12. The probability of skill acquisition
13. The minimization of physical harm
14. The functional nature of a skill
15. The chronological age-appropriate nature of a skill
16. Relevant research

As a community living skill program is developed, all of these dimensions must be considered. At Willson-Beardshear School, the staff, administration, parents and students were all interested in and saw a need for this type of program. The students (moderately and severely handicapped) were in need of this type of programming as a natural adjunct to their vocational, recreation-leisure, and domestic living programs. With three shopping centers (one enclosed), a modest sized downtown shopping area, post office with branches, banks, a library, and many diverse restaurants within reach by foot, car, or a city bus system; and with adequate interested support staff (occupational therapist, speech and language clinician, school social worker, and university and high school volunteers), a project to more fully involve students in community based training was considered logistically reasonable. The skills to be learned included finding and purchasing items, cashing checks, buying stamps and mailing cards, traveling from one place to another by various vehicles and on foot, ordering a meal, etc. These skills were considered relevant to the object of community living skills instruction. They were also considered socially significant in that they would be instrumental in gaining general social acceptance of moderately and severely handicapped students. In summary, a community-based life skills training program is an essential component of a program with the goal: semi-independent, community-based living and working for the moderately and severely handicapped.

Method

Two primary community mobility goals are to teach shopping skills and appropriate behavior skills in travel and communication. In this domain, students weekly go into the community into a variety of commercial areas including the downtown and the shopping center. In preparation for the community experience, the students participate in classroom work each week, learning the names of the stores to be visited and items which could or could not be bought within that store. Restaurant skills are also practiced in the classroom. Each student orders his own lunch from a menu, budgets his money, demonstrates proper eating skills, and pays for his/her food and tips the waiter/waitress appropriately.

The senior Mentally Disabled Trainable, intermediate Mentally Disabled Trainable, and senior Severe/Profound students, with at least three staff members supervising, each set aside one day a week for community mobility. The day begins with a review of the store names and items that may be purchased. Students carry their own money to spend during the trip. The money covers the cost of lunch and/or token for Cy-Ride (the city transit system). Students are encouraged to use billfolds and purses for identification and money.

Activities at the shopping center are divided into four phases with each student working on the phase or objective for his/her program.

Phase I - Picture cue--A student is given a card with a picture and told to find a specific store and that item in the store.

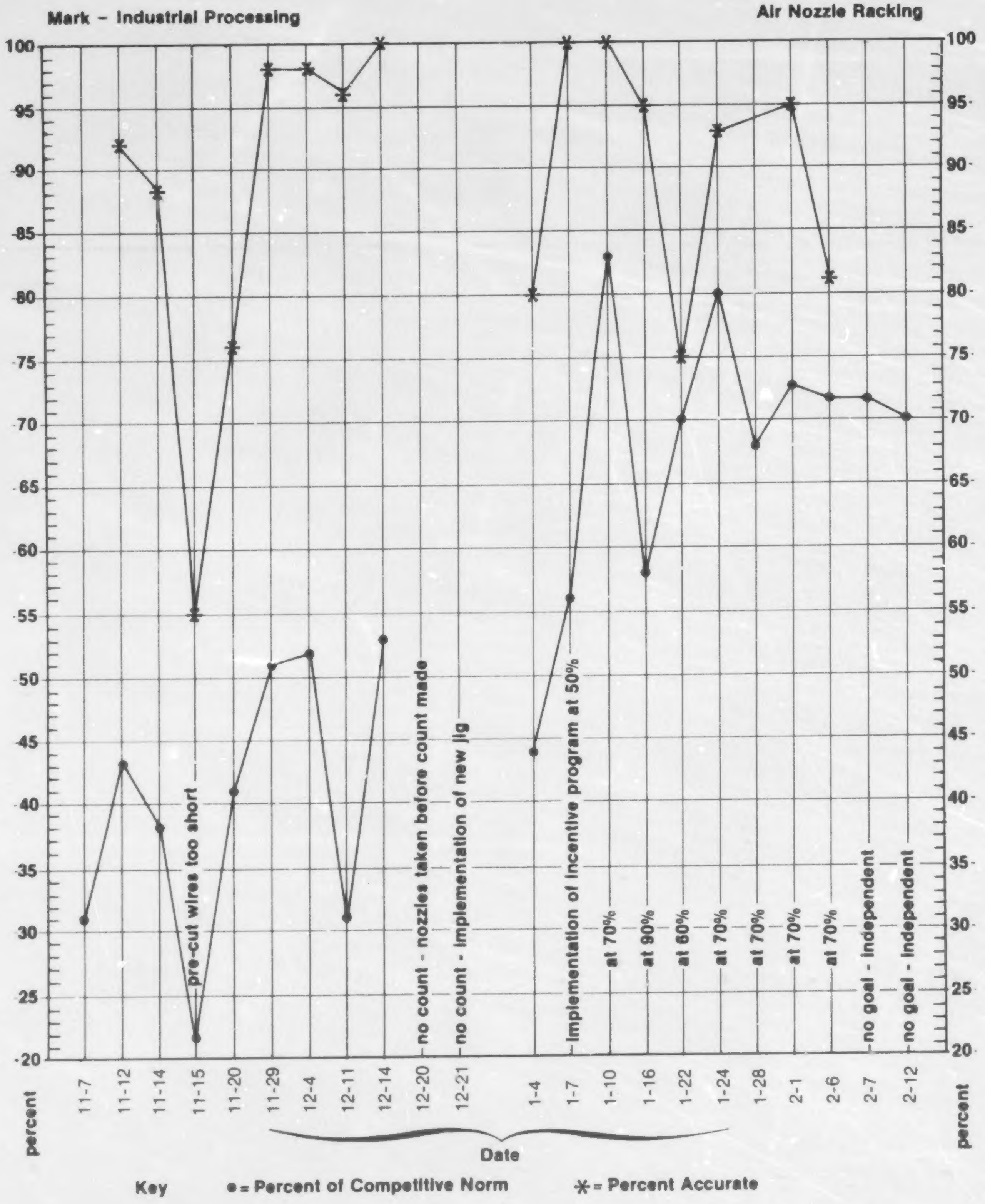
Phase II - Verbal cue--A student is verbally told (without a picture cue) to find an item within a specific store.

Phase III - Decision making--A student is given a picture card of two items and below each item is the name of two stores. The student must decide in which store to look for each item.

Phase IV - Travel--A student is given a list of stores to find within the shopping center. He or she must wait outside each store until checked by staff, then may proceed to the next store on the list.

Figure 2

Graph Showing Attending to Task



After completion of the objectives for the morning, the students proceeded to a restaurant. In the classroom, the students previously chose a restaurant, practiced ordering from the menu, and role played paying their check. At the restaurant, staff would withdraw from the students in order not to serve as a behavior model. Staff would sit at a table near the students, but not directly with them. Consequently, students were required to depend upon themselves or each other for communication with the restaurant personnel.

Parents were encouraged to send money with their children to purchase items in the afternoon. Amounts range from fifteen cents (15¢) to two dollars ($2.00). Typical items purchased were greeting cards, pencils, candy, gum, books, records, and underwear.

An objective of community mobility was to teach students to leisurely shop and travel from store to store. Students learned to identify the name of stores and items that can or cannot be bought within the stores. The location of each store at the shopping center was learned in relationship to the main and south mall entrances and also in relationship to each other. In addition to the shopping skills, students acquired levels of competency in: (a) telephone skills, (b) travel on city transit, (c) seeking aid when looking for an item or when lost, (d) completing a transaction with sales personnel, (e) ordering skills, (f) eating skills, (g) paying and, (h) tipping.

The success of community mobility can be measured by not only observing the behavior of the students, but by the enthusiasm shown by the parents. Also, the community has become involved in educating and understanding mentally handicapped children. Teacher attitudes have changed in regard to philosophy and methods of teaching. Students, parents, the community, and teachers all share success and growth.

Community mobility includes mobility within the neighborhood, shopping center, and downtown shopping area with emphasis on transportation, restauranting skills, shopping, and budgeting. Within each of those areas, students were taught to function more independently.

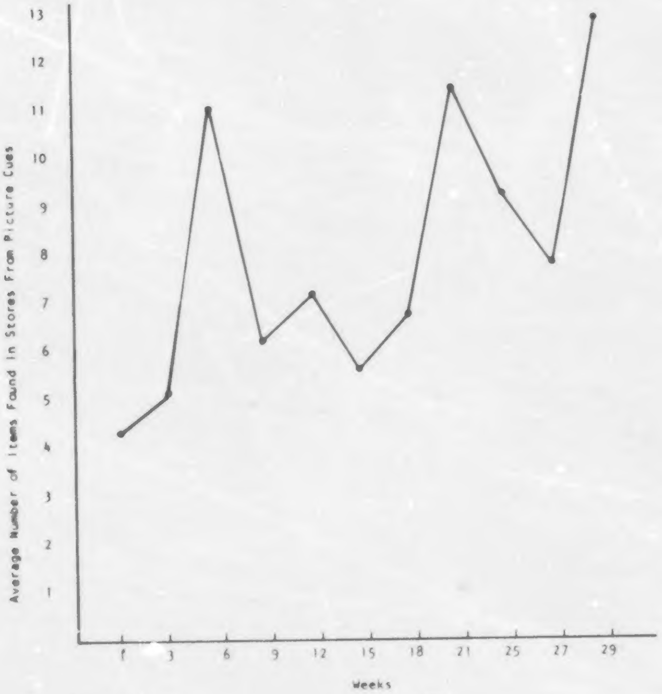
Results and Discussion

Figure 3 presents data on the number of items found by each student in the intermediate classroom for moderately mentally disabled students. Although there is a great deal of inconsistency in these data, there is a general trend toward the students being more efficient shoppers.

Unfortunately, most of the gains by students were not captured in objective data based recording. This year, efforts are being made to more carefully document skill acquisition by all students in this program. Subjectively, the students have become more confident in the community, they are more socially appropriate, and the public has learned to accept the students as fellow citizens. Future program efforts are definitely needed in this area.

Figure 3

Average of Items Found in Stores During Community Mobility Training



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Brown, L. and Falvey, M., "Strategies for Generating Comprehensive, Longitudinal and Chronological Age Appropriate Individual Educational Plans for Adolescent and Young Adult Severely Handicapped Students," *Journal of Special Education*, 1980, Volume 14 (2), pp. 199-215.

Social-Interpersonal Instruction for Moderately and Severely Handicapped Students

by: Carol Adams, School Social Worker; Joyce Powers, Speech Clinician; Diane Larsen, Educator of Moderately Disabled; Bonnie Twedt, Educator of Moderately Disabled; and Marilyn Goll, School Nurse

Social interaction programming is a significant component of the Willson-Beardshear curriculum. This programming needs to occur in school, home, community, and vocational environments. Teaching typically occurs spontaneously as social situations arise indicating that students need intervention. Social skills are also taught in structured, planned situations in the school and community.

Social communication skills of students are periodically evaluated by the classroom teacher, speech and language clinician, and school social worker (See Table 29). Results of these behavioral checklists indicate student needs which become the focus during social interaction training sessions. Sessions are held within the school at least three times per week, and in the community at least once a week. School sessions generally last from 30-45 minutes and include: (a) social interaction training, (b) sexuality awareness training, and (c) telephone training. Social interaction and sexuality awareness are frequently combined, just as the two components often are not separated in reality. During "Personal Awareness" sessions, appropriate social interaction skills are emphasized in a variety of settings: workroom, lunchroom, art room, gym, home living area, office, classrooms, etc. In addition to the school classroom, social interaction programming takes place during (a) community mobility training trips, (b) vocational training periods, and (c) at home with parental cooperation.

Specific skill areas emphasized in social interaction programming are listed below.

Conversing/small talk
Body language: reading and expressing
Recognizing and reacting to emotions
Asserting self/getting needs met

Using social amenities
Personal appearance
Social/sexual interaction
Identification of self

Requesting and receiving assistance
Expressing difference of opinion
Accepting criticism
Responding to authority
Giving and receiving compliments/praise

Telephone usage
Vending machine usage
Travel and orientation
Time awareness

Personal awareness classes include all students, male and female, in a given classroom. The following activities comprise the sessions.

(1) Social situations actually encountered by students in the home, school, or community are described by staff (feedback from all members of the student's interdisciplinary "team" is essential). The specific situation and student's behaviors are discussed. Students respond with feedback indicating positive or negative reactions to behaviors described. One or more students are then asked to role-play the situation with staff members, demonstrating appropriate behaviors. This role-play is videotaped and critiqued by students, with guidance from staff members. Students are encouraged to praise each other for positive behaviors.

(2) Simulated social situations are described by staff members. In planning these simulations, staff members attempt to anticipate realistic social encounters which students have not dealt with regularly. For example, a dance, graduation, dinner out in a new restaurant, advance from a stranger, etc., are a few of the possible situations. Staff members frequently role-play inappropriate behaviors and elicit student feedback. Students then are asked to role-play the same situation, demonstrating appropriate behaviors. Student role-play is videotaped, and students evaluate the appropriateness or inappropriateness of the behaviors.

(3) Sexuality awareness sessions have utilized Winifred Kepton's slide series "Sexuality and the Mentally Handicapped." Sessions are held throughout the school year, one or two days per week for 30-45 minutes each, depending upon the age and needs of the students. Although teaching is done by the nurse and social worker, the classroom teacher and educational aide are also present and participate freely in this discussion. The staff feels that teaching male and female students together facilitates discussion and encourages age-appropriate social behaviors.

(4) Telephone training sessions are held once per week, using the Bell System "teletrainer" and/or actual telephone equipment. The speech and language clinician is the primary teacher, assisted by other staff members as needed. Emphasis is placed on functional skills, such as calling an employer when one is ill and cannot go to work, or calling a place of business for information.

Community mobility trips are scheduled weekly, including lunch at a local restaurant and using various stores and community facilities. Extensive preparation for these trips begins in the classroom, under the guidance of the teacher and educational aide. Supervision of students in mobility training is shared by the teacher, aide, speech and language clinician, school social worker, and other support staff as needed. Developing functional mobility skills with maximum independence and age-appropriate social behavior is the basic goal of the mobility program. In parent conferences, school staff assist parents to plan corresponding mobility experiences in each student's home community.

At the vocational training sites, social interaction skills are supervised by the teacher, aide, vocational coordinator, and vocational training aide. These skills are considered to be as essential to the student's success as work performance skills. Students are encouraged to model appropriate behaviors exhibited by fellow employees, such as attending to task, following work rules, displaying a positive personal appearance, using vending machines, conversing during break, and requesting and receiving assistance.

In the home, parents, siblings, and group home staff are urged to continue work on social interaction skills. Parent conferences, telephone calls, and other means of communication provide regular opportunities for home-school interaction. Parents share with school staff in planning social skill objectives and programming. Relevant "homework" practice is recommended as an integral part of the student's program.

In summary, the social interaction program at Willson-Beardshear is intricately woven into all aspects of the student's life. School staff, employers, parents, and other agency representatives work cooperatively to teach students to function as independently as possible in their current and future environments.

Table 29

Evaluation Form - Social Communication	Key: + = behavior appropriate – = behavior not appropriate s = shaping behavior Date Evaluated ________________									
1. (a) Introduce give name (shake hands as appropriate)										
(b) Give identification information upon request:										
1. Age										
2. Street										
3. City										
4. Phone										
5. School										
6. Teacher's name										
7. Employer's name										
8. Place of employment										
2. Conversation										
(a) Engage in 1 min.:										
1. Adult initiated										
2. Peer initiated										
3. Self-initiated w/adult										
4. Self-initiated w/peer										
5. Self-initiated with peer group (3+ people)										
(b) Attend during 1 min.										
3. Use appropriate body language during conversation										
(a) Maintaining eye contact										
(b) Maintaining appropriate distance										
(c) Refraining from inappropriate actions - (list)										
4. Use Social Phrases.										
(a) Please										
(b) Thank you										
(c) You're welcome										
(d) Excuse me										
1. When making inappropriate physical contact										
2. When interrupting										
5. Request and receive help:										
(a) Select helper										
(b) Locate										
(c) Ask for help (list specifics)										
(d) Respond to helper										
6. Express difference of opinion appropriately (list specifics)										
7. Accept criticism appropriately (list specifics)										
8. (Other objectives appropriate to individual needs)										

I.E.P. Development

by Susan Teas

The primary responsibility for writing the individualized education plan is assigned to the classroom teacher. In cooperation with parents and support personnel, such as the speech and language consultant, the social worker, the psychologist, and the physical and occupational therapists, the I.E.P. is developed to include the four major life domains: domestic living, community mobility, vocational, and recreation/leisure. Each member of the team provides information regarding the student's strengths and weaknesses, and the team together identifies education needs and goals. Objectives are written to meet the specified goals.

The I.E.P. is not intended to be the daily lesson plan, but rather it frames the prescriptions and lesson plans each individual follows. Long-term objectives on the I.E.P. are written so that the task of continually adding new objectives is not necessary. Individual progress is measured by analysis of daily or weekly data, but I.E.P. objectives are not revised or rewritten daily or weekly. The goals and objectives are long-term and do not include daily prescription objectives. The I.E.P. provides the framework for the daily plan which is comprehensive and inclusive in the four functional domains.

In identifying the individual's needs in the vocational domain, the student is assessed using either formal or informal assessment instruments. The Prevocational Assessment Career Guide (PACG) for example, provides information regarding the individual's vocational skill level. The PACG Curriculum Guide provides an objective base in the areas of worker behavior, interaction skills, and self help skills. These objectives can be used in developing the worker's I.E.P. In addition to formal assessment instruments such as the PACG, the functional, age-appropriate, community referenced school curriculum provides a base of objectives which are functional and which include activities in all four domains. The school initiated curriculum is the basis for the development of the I.E.P.

In developing the vocational component of the I.E.P., a long term goal might be "to be a productive, independent worker" (see Table 30). Specific objectives for that individual, as developed under the vocational goal, might be to:

1. Maintain continuous work for 90 minute periods with zero number of supervisor contacts required on four out of five working periods by October 6.
2. Accurately complete the task to 95 percent four out of five days by November 3.
3. Decrease the number of out-of-seats (out-of-work station) to one to two times per day by November 17.
4. Comply to an instruction within five seconds without a second prompt two out of three times by February 20.
5. Decrease the number of inappropriate contacts with co-workers to one to two times per day by March 16.

The objectives identified for the worker should be long-term objectives in that they are not meant to be achieved within one work period. No matter what job assignment is given a worker, he or she is expected to perform that job accurately with the above criteria in effect. The objectives for the worker, as written in the I.E.P., are developed to achieve the goal of being an independent, productive worker. As an objective is met, it is noted on the I.E.P. and the student is expected to continue that appropriate behavior identified in the objective throughout the vocational training program.

Many educators feel that I.E.P.s should be written initially at the beginning of the school year and updated at least quarterly. Other educators feel that a plan written once a year will appropriately provide for the requirements of P.L. 94-142. A well-written I.E.P. which correctly describes the educational needs of the individual, with objectives identified to reach these needs, is needed to be developed at least once a year. The I.E.P. team, through daily and on-going communication of the program activities, interprets information for program modifications and alterations. The objectives identified on the I.E.P. often need not be modified over the school year but rather the methods of intervention, by the classroom teacher and support personnel may need to be modified in order to reach the objectives specified in the I.E.P.

General student information such as the names, addresses, and phone numbers of all individuals in direct contact with the student and his or her program is requested, as is information regarding the student's communication abilities. In order to plan long-range goals, it is important to know upon graduation from school the activities the parents would like to see their son or daughter participating in, and the living arrangements they would like for their child.

In each of the four domains, information is requested regarding what the individual is able to do, how well he or she can do it, and what the parents would like to see their son or daughter be able to do. Once the inventory is completed by parents, it should be included in planning the student's individual education plan. This inventory should be reviewed and updated on a yearly basis.

Table 30

Ames Community Schools

Individualized Educational Plan (IEP)

Student Michele

Teacher Diane

Parent Mr. and Mrs. Don

Consultant Gwen

Administrator Lee

Support Person Susan

Person Providing Service Diane

Classroom and Weighting Senior MDT, 2.0

Current Level of Functioning

Michele is functioning in the upper senior level of the vocationally-aimed, functional, age-appropriate curriculum; specifically in the transition year.

Short Term Objective — The student will be able to:

1. Maintain continuous work for ninety-minute periods with zero number of supervisor contacts required on four out of five working periods by October 6.
2. Accurately complete the task to 95% four out of five days by November 3.
3. Decrease the number of out-of-seats to one to two times per day by November 17.
4. Comply to an instruction within five seconds without a second prompt two out of three times by February 20.
5. Decrease the number of inappropriate contacts with co-workers to one to two times per day by March 16.

Long Term Goal To be a productive, independent worker

Recording Period School Year, 1980-81

Support Personnel Speech & Language Consultant, Social Worker, Psychologist, Nurse

Special Considerations This is her transition year . . . emphasis is on placement after graduation

Special Services

Art-two 60-minute periods
Music-two 30-minute periods per 10 days
Adaptive P.E.-three 45-minute periods per 10 days
Speech - Level 4
Vocational Training - ten 3-hour periods per 10 days

Dateinitiated	**Date achieved**	**Carry over objective**	**Drop objective**

Comments

Parent Involvement

by Susan Teas

It is not only a good policy to keep parents informed of the goals and objectives of their son's or daughter's education plan and of the gains and accomplishments of their son or daughter, but it is also important to continually communicate concerns, educational strategies, and philosophies in order for the program that is implemented during the school hours to be also implemented at home.

Conferences

During the school year, several days should be set aside for parent conferences. These conferences serve to involve the parents actively in the education of their son or daughter. Teachers, staff, and parents should jointly evaluate and plan for the individual's program. It is not only important that the parents be informed of the educational plans, but that their opinions and concerns be included in identifying the goals and objectives for their son or daughter.

Daily Contact

It is important to continue communication throughout the school year with the parents regarding their son's or daughter's program. The type and frequency of contact and communication depends on the individual's program. A daily note or sheet listing the school activities completed and the student's performance in those activities enables the parents to reinforce those activities in environments outside the school.

For example, if a student working in the domestic living domain, has been involved in food preparation at school, those domestic activities can be continued at home. If a student needs additional reinforcement in grooming skills such as shampooing, the parents can help their son or daughter shampoo his or her hair at home. In the community mobility domain, if educational plans are to shop the following day at a drugstore, a list of needed items can be sent with the student to school the next day, with the appropriate amount of money. Community mobility skills taught at school, therefore, are reinforced at home. In the recreation/leisure domain, if a student has learned to needle point, the needle point materials can be included in the evening during the individual's leisure time. In the vocational domain, a productive day at work can be reinforced at home through conversations regarding the student's work activities. Because time spent in school is limited to six hours and the majority of the day is spent in other environments, the student must receive instruction and guidance from the home with emphasis placed on meeting the goals and objectives of his or her individual program.

Group Meetings

In addition to meeting with parents individually, it is beneficial that parents meet as a group at least once or twice a year. These meetings should be held during the day in order to assure that parents are able to come. Because students may come from several different school districts, meetings in the evenings are often difficult to attend. A group parent meeting should be scheduled both in the fall and the spring of the year.

The purpose of the group meeting is to explain the philosophies of the community-referenced, age-appropriate, vocationally aimed curriculum. Because the basic philosophy is the same throughout all age and grade levels and handicapping conditions, information on a general basis within all domains (community mobility, domestic living, recreation/leisure, and vocational) can be shared. Questions asked by one parent may be a concern to all, and staff concerns may be pertinent across all age levels.

A group meeting also gives an opportunity for parents of younger aged students to see what the older students have learned and what should be expected of their child.

Group meetings are also beneficial in that parents can visit and share with each other, and can reinforce the philosophy of the school's curriculum as a group. Without parental support, the implementation of the school program would not be the success it is.

Vocational Approval

Because emphasis is placed in vocational training and independence in the community, especially during the senior level, many items involving the student's work placement need to be approved by the parents. The training agreement written between the business establishment and the school involves the student's work at a site other than the school workshop. Parents should agree to this training, understand the worker's goals and objectives, and understand the potential earning of wages.

Transportation to and from work may involve parents. Even if they do not directly provide the transportation, they should understand and approve the means that are used to transport their child to and from work.

The student's productivity and potential competitive employment abilities are often a surprise to the parents, because parents of moderately and severely handicapped individuals often feel that their child will never be able to be a productive employee. The student's job description and production capabilities, when shared with the parents, show that the goal for the student to be a productive independent worker can be, and is being met.

Parent/Guardian Inventory

A questionnaire, revised from the inventory used in the Madison (Wisconsin) Public School System, provides a means for gathering from the parents information which is used in planning for the student's individualized education plan and in understanding the feelings and concerns of the parents.

The Parent/Guardian Inventory asks questions in the four domains: domestic living, community mobility, recreation/leisure, and vocational (See Appendix C).

Chapter 5

Project A.M.E.S. Results

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Chapter 5

General Results

At the conclusion of the 1979-1980 school year, Project A.M.E.S. resulted in several significant accomplishments. With increased opportunity to perform vocational tasks, and with systematic instruction, the students at Willson-Beardshear school demonstrated that they are capable of performing a variety of complex work skills. These work tasks included volunteer activities, simulated service and manual assembly jobs, subcontract manufacturing, and nonsheltered competitive employment. Students worked daily at the school-based workshop and were increasingly involved in community-based vocational training experiences. Consequently, the students acquired new vocational competencies, and the Ames community learned that mentally disabled persons are capable of productive work.

Volunteer Work

Every vocational program needs a supply of work to maintain its training capacity. It is also desirable to have a work training product that is useful to the community and does not need to be disassembled. Volunteer work meets both of these criterion.

Figure 1, page 84, depicts the cumulative volunteer units completed by Willson-Beardshear students. By the end of the 1979-1980 school year, the students had worked for 16 different community agencies and had completed approximately 80,000 volunteer units. By working in a volunteer capacity, the students acquired new vocational skills and made significant contributions to their home community. Many community members witnessed first hand evidence of the productivity of mentally disabled citizens.

Simulated-Work Jobs

Simulated-work jobs are manual assembly tasks or service assignments (e.g., clean the school washroom) that closely resemble employment opportunities in the community. The biggest advantage of using simulated work assignments for vocational training is the availability of a consistent supply of work. This consistency enables staff to optimally program for vocational skill acquisition, production rate increases, and longer job endurance.

During the 1979-1980 school year, students in Project A.M.E.S. produced approximately 330,000 units of simulated work (see Figure 2, page 84). These data provided further evidence of the productive capabilities of mentally disabled students.

By developing a large supply of simulated work materials, it was possible to conduct systematic vocational training programs with individual students across several months. Without a constant supply of work, long-term programs are impossible. Through the structure and consistency of these programs, several students acquired new vocational competencies. Although the vocational gains that were evidenced on simulated work are encouraging, it remains to be demonstrated that these skills generalize to sheltered subcontract assembly and to nonsheltered competitive employment.

Subcontract Work

The Willson-Beardshear School applied for, and received licensure as a Work Activities Center (WAC). This licensure greatly increased the flexibility of the school-based training program. With WAC licensure, the school was able to receive subcontracts from industry and pay students for work completed at the school-based workshop and at the community-based work exploration and on-the-job training sites.

The availability of subcontract work allowed the older students access to realistic and meaningful vocational training experiences that resulted in remuneration. At the end of the 1979-1980 academic year, Willson-Beardshear students produced approximately 157,000 subcontract units (see Figure 3, page 85). The subcontract work was completed for two major industrial firms in the Ames, Iowa, area. This work was produced in the school-based workshop and at the actual factory.

The subcontract work provided students with the opportunity to learn vocational skills that could result in eventual employment. In addition, these students' prospective employers learned more about the productive capabilities of the mentally disabled.

Community-based Training

A characteristic of many mentally disabled students is that they do not generalize very well from one situation to another. As a result, what they learn in school does not necessarily result in their being able to perform equally well in the community. Since independent performance in a community-based vocational placement is the goal of Project A.M.E.S., training experiences needed to be conducted in community settings.

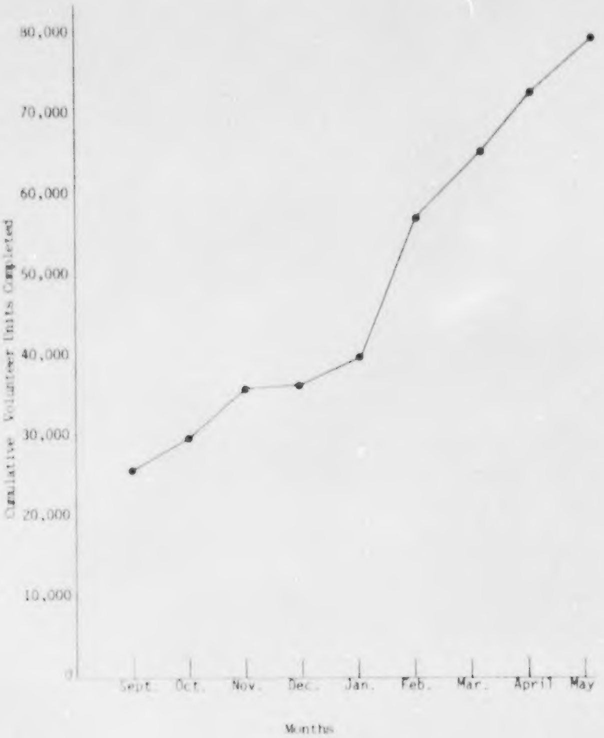
In Project A.M.E.S., there has been an active attempt to place students into community-based vocational experiences. At the close of the 1979-1980 school year, approximately 1,600 hours of student vocational instruction were conducted in non-school community-based vocational settings (see Figure 4). Prior to the 1979-1980 school year, vocational instruction was conducted solely within the school. In the future, an attempt will be made to expand the number of hours that students spend in community-based work exploration and on-the-job training.

Dollars Earned

One of the strongest pieces of evidence regarding the effectiveness of a vocational training program is the amount of money earned by the students. In the year preceding Project A.M.E.S., individual students did not earn any money. In 1979-1980, the total amount of student earnings was approximately $3,000. Figure 5 depicts the cumulative dollar earnings for all students across the months of the school year. With expanded sub-contract possibilities and with more extensive involvement in community-based vocational training, next year's dollars earned should far exceed this year's total.

Figure 1

Cumulative Volunteer Units Completed During the 1979-1980 School Year



Conclusion

Figures 1, 2, 3, 4, and 5 are intended to illustrate the vocational productivity of mentally disabled persons. These accomplishments were made possible through Project A.M.E.S., a program that combined increased opportunity for vocational experience with systematic instruction on vocational objectives.

In the past many years, people thought that vocational potential was quite limited for persons labeled moderately and severely handicapped. However, as more energetic and sophisticated training programs are developed for persons with severe disabilities, we are learning that vocational potential is not an inherent quality, but reflects the quality of vocational training experiences that are provided. As school systems improve the quality of their vocational programs the vocational potential of their students will improve accordingly.

Figure 2

Cumulative Productivity on Simulated-Work Tasks During the 1979-1980 School Year

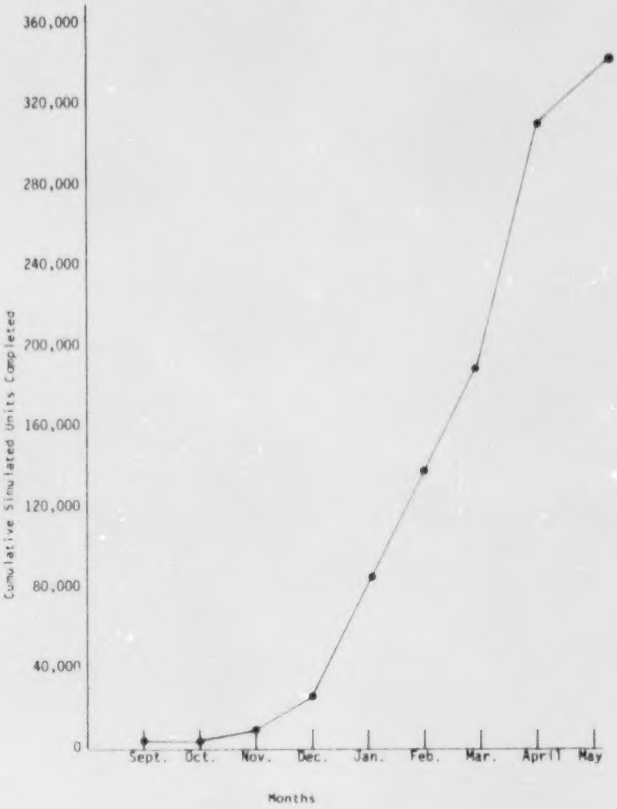


Figure 3
Cumulative Subcontract Units Completed During the 1979-1980 School Year

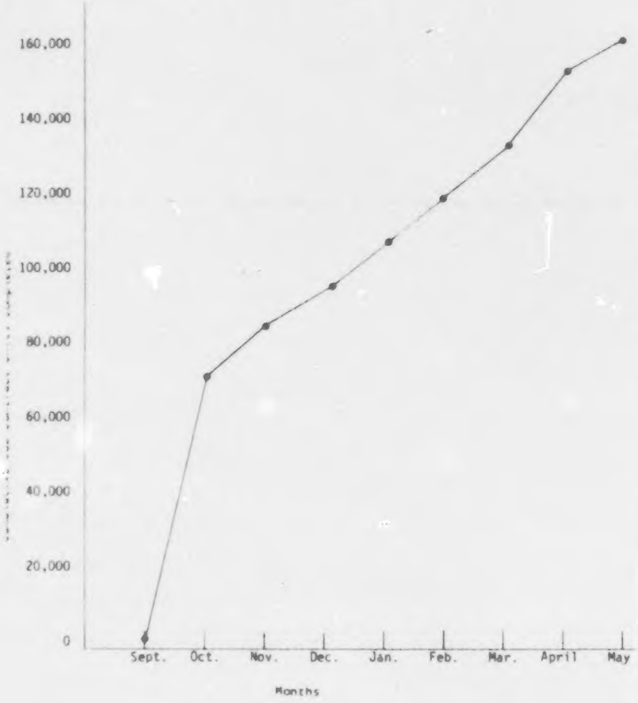


Figure 4
Cumulative Community-based Work Experience Hours of Students by Month During the 1979-1980 School Year

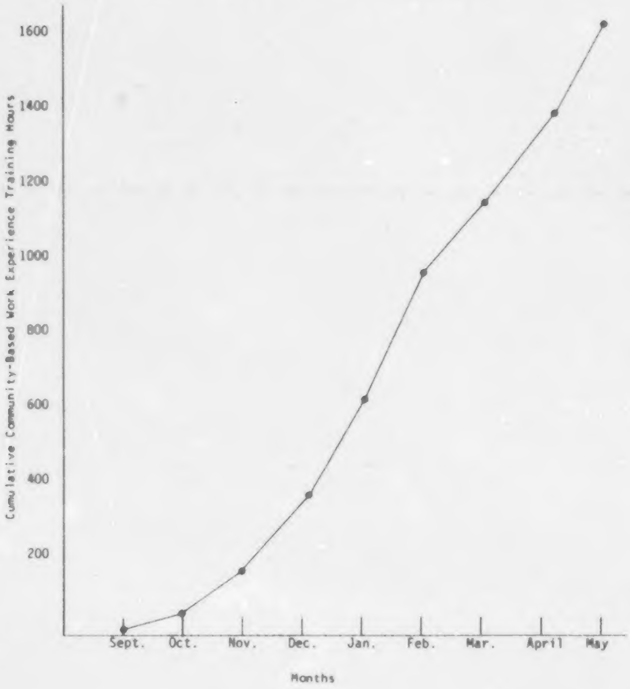
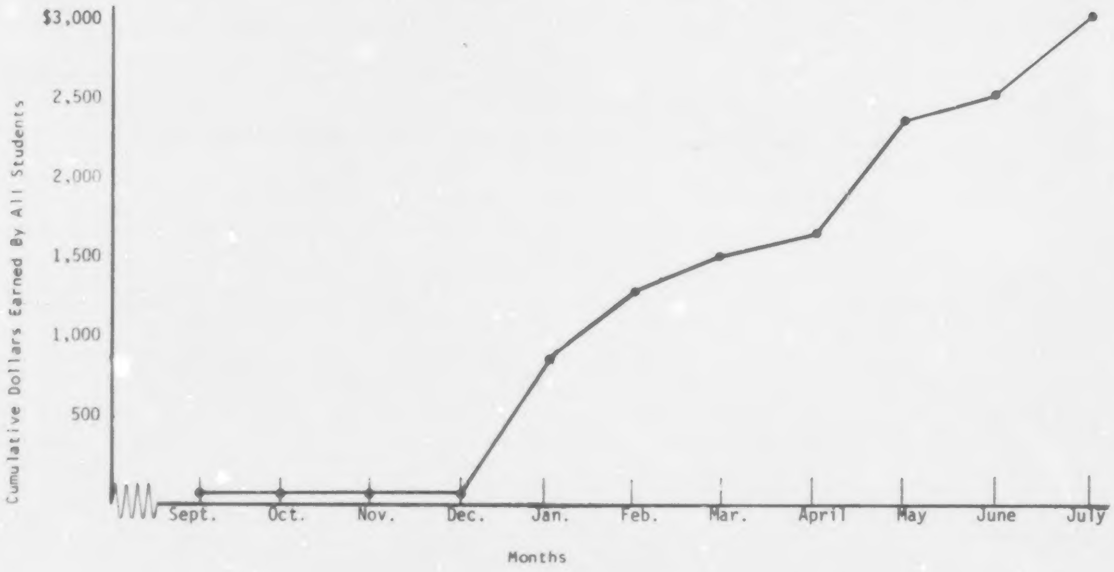


Figure 5
Cumulative Dollars Earned by Students During the 1979-1980 School Year



Cost Analysis

by: Steve Maurer, Consultant, Severely/Profoundly Handicapped; Clifford Howe, Professor, University of Iowa; and Susan Teas, Work Experience Instructor

Introduction

The major goal of Project A.M.E.S. is to provide training experiences which will enable students to become as independent as possible at home, at work, and in the community. The philosophy is one of prevention/intervention to teach a person to become self-reliant instead of reinforcing dependency on families and taxpayers. Project A.M.E.S. staff believe in the idea that spending a little more money now as an investment will require less money in the future, and will improve the quality of life for the handicapped individual.

Discussion

As can be seen in Table 1, costs for supporting students in public school programs are less than residential placement. Public school settings are also a less restrictive environment and provide additional opportunities for integration into the community. Another point to consider is the level of support provided by current weighting procedures in Iowa. These funds should make it possible to develop a strong vocational component.

Table 2 reflects the 1979-80 Willson-Beardshear program costs, excluding Project A.M.E.S. program costs. The expenditure categories are traditional items for school districts serving moderately and severely handicapped students except for the community mobility expenditure. This item reflects expenses incurred instructing students in a variety of community settings. As more time is spent in the community, the cost of purchasing instructional supplies and materials will decrease, thus allowing school districts to shift instructional supply monies into community mobility activities.

Project A.M.E.S. is jointly funded by the Special Education Division and Special Needs Section of the Iowa Department of Public Instruction. Table 3 presents an outline of expenditures by funding source. Special Education dollars were channeled through Heartland Area Education Agency 11, who employed the work experience instructor and reimbursed the Ames Community School District for other expenditure items. Special Needs dollars were sent directly to the Ames Community School District on a reimbursement basis as a part of a vocational education contract.

Table 4 reflects the Project A.M.E.S. expenditures by Project goals. Approximately 58 percent of the total funds were expended in the development of vocational training and placement procedures.

Project expenditures include many expenses which school districts would **not** incur if they sought to replicate many of the strategies developed as a part of Project A.M.E.S. Such expenditures would include (a) a work experience instructor, (b) an outside consultant, (c) a project secretary, (d) media development (slide-tape) costs, and (e) project administrative costs.

Table 5 reflects both the age and phase emphasis in vocational training, and placement of moderately and severely handicapped students. The longitudinal nature of vocational training is emphasized. At younger ages, vocational activities, for the most part, take place in the school workshop. As a student becomes older and participates in exploration and preparation activities in the community, the need for a work experience coordinator and a vocational training aide becomes a **necessity** because of the amount of one-to-one supervision which may be required for many students.

School districts would likely incur the costs of the following: 1) the salary of a vocational training aide, and 2) teacher travel.

Summary

The Project A.M.E.S. expenditures indicate that it may cost more to provide an age-appropriate, functional, community referenced education for moderately and severely handicapped students. However, we maintain that school districts can implement many of the vocational strategies developed by Project A.M.E.S. and remain within the weighted dollars presently generated by moderately and severely handicapped students.

Comparision of figures in Tables 2 and 5 would indicate the validity of the above statement. By adding the average expenditure per pupil figures of Tables 2 and 5 together and then comparing them to the figures generated by multiplying the average per pupil expenditure for non-handicapped students ($1,715) by the number of 2.0 and 4.0 students, one sees that expenditures would exceed dollars generated. However, one must remember that the expenditures in Table 5 are greatly inflated because they include expenditures for a work experience instructor, outside consultant, and project secretary; expenditures which would not be incurred by local school districts. The expenses most likely to be incurred by local school districts would be the employment of a vocational training aide, or teacher and aide travel expenses. Taking these factors into consideration, expenditures and dollars generated come out about even. (Note of caution -when comparing figures, one should remember that Table 2 does not include transportation expenditures. Expenditures will vary from school district to school district.)

In conclusion, in order to provide an appropriate education for moderately and severely handicapped students, local school districts and area education agencies must evaluate current curriculum philosophies and staff utilization strategies. Administrators must realize that vocational training should be provided in a longitudinal manner, beginning at an early age, in order for a young adult to display acceptable and appropriate production, attending, and social skills. They should also realize that moderately mentally disabled students can, and should, work in the community, and not assume that sheltered employment is their only option. If the purpose of school--to teach students how to live outside of school--is to be fulfilled, staff must also be allowed to spend quality time not only in the school, but in the community teaching each handicapped student.

Table 1

1979-1980 Average Annual Costs of Serving Severely Handicapped Persons

Nine-Month Public School Program	$7,392
State Hospital-School Resident	$18,000-25,000
Community Residential Facility	$ 8,395-10,950
County Home	$ 1,825- 4,380
Sheltered Workshop	$4,380
Work Activities Center	$4,015
Activities Center	$ 1,825- 3,650

Table 2

Willson-Beardshear 1979-80 Program Costs*

(Excluding Vocational Expenditures - Table 5, Page 91)

4.0 Program - 9 pupils	
Two teacher's salaries =	$27,624.98
Three aides salaries =	13,884.86
Fringe benefits =	5,972.54
Instructional supplies =	1,480.87
Direct cost total =	$48,963.25
Plant operation & maintenance =	$4,068.00
Administrative costs =	4,690.00
Indirect cost total =	$8,758.00
Grand total =	$57,721.25
Average expenditure per pupil =	$6,413

Table 2 (cont.)

2.0 Program - 25 pupils

Three teachers salaries =	$39,343.18
Three aides salaries =	$21,946.77
Fringe benefits =	8,584.62
Instructional supplies =	1,736.63
Community mobility =	1,200.00
Direct cost total =	$72,811.20
Plant operation & maintenance =	$6,102.00
Administrative costs =	7,035.00
Indirect cost total =	$13,137.00
Grand total =	$85,948.20
Average expenditure per pupil =	$3,438

*Ames Community School District average per pupil expenditure for nonhandicapped students weighted 1.0 in 1979-80 = $1,715.00

Table 3

Funding Sources and Amounts; Expenditure Categories

Special Education Division -	$40,000
Expenditures:	
Work Experience Instructor	
Teacher & Aide Expenses	
Special Start-Up Materials	
Development of Media	
Project Evaluation	
Printing	
Administrative Costs	
Special Needs Section -	$15,137
Expenditures:	
Outside Consultant	
Vocational Training A[illegible]	
Total =	$55,137

Table 4

Actual Vocational Expenditures

By Project Goals

% of Expenditure Per Goal	Expenditure Item	Actual Item
1. Develop and implement a functional, age-appropriate, school-based, community-referenced curriculum.		
20%	Work Experience Instructor (salary, fringe, travel, printing)	$4,561.98
5%	Vocational Training Aide (salary, fringe, travel)	312.85
30%	Outside Consultant (consulting fee, travel expenses)	2,664.00
5%	Secretary (salary, fringe, supplies)	298.31
45%	Teacher and Aide Expenses (workshop, attendance, travel expenses, writing time)	2,487.02
50%	Special Start-Up Materials	358.13
25%	Administrative Costs	185.60
	Sub-Total =	$10,867.89
2. Develop and implement vocational training and placement procedures.		
65%	Work Experience Instructor	$14,826.45
90%	Vocational Training Aide	5,631.30
45%	Outside Consultant	3,996.00
80%	Project Secretary	4,772.97
45%	Teacher and Aide Expenses	2,487.02
50%	Special Start-Up Materials	358.13
25%	Administrative Costs	185.60
	Sub-Total =	$32,257.47

Table 4 (cont.)

% of Expenditure Per Goal	Expenditure Item	Actual Item
3. Provide technical assistance to LEA's and AEA's by product dissemination, inservice training, and on-site technical assistance.		
10%	Work Experience Instructor	$2,280.99
5%	Outside Consultant	444.00
5%	Project Secretary	298.31
100%	Media Development	606.87
100%	Printing	2,316.50
25%	Administrative Costs	185.60
	Sub-Total =	$6,132.27
4. Conduct evaluation of project components.		
5%	Work Experience Instructor	$1,140.50
5%	Vocational Training Aide	312.85
20%	Outside Consultant	1,776.00
10%	Project Secretary	596.62
10%	Teacher and Aide Expenses	552.67
100%	Outside Evaluator	536.90
25%	Administrative Costs	185.60
	Sub-Total =	5,101.14
	Grand Total =	$54,358.77

Table 5

Develop and Implement Vocational Training and Placement Procedures

Phases	Number of Moderate Students	Number of SPH Students	Priority % of Project	Project Costs	Average Per Pupil Expenditure
Awareness (ages 6-10)	5	3	10%	$ 3,225.75	$ 403.22
Accommodation (ages 11-15)	10	3	20%	$ 6451.49	$ 496.27
Exploration ages 15-21	5	1	60%	$19,354.48	$ 1,488.81
Preparation (ages 18-21)	5	2			

Sub-Total = $32,257.47

Chapter 6

Vocational Training Strategies and Program Results of Project A.M.E.S.

Chapter 6

Increasing Production Rates of Mentally Disabled Adolescents in School and Community Vocational Training Programs: the Use of a Changing Criterion Procedure Design

by: Paul Bates,

Success on a job (sheltered or competitive) is a function of multiple factors. Once a student has acquired the basic skills required, emphasis often shifts to the speed at which the job skills are performed. Since the speed of job performance (production rate) is important to eventual employment success, techniques designed to improve the production rate of mentally disabled students must be identified. One procedure that has been effective for improving the production rates of severely handicapped persons in sheltered and competitive situations is the implementation of a series of changing criterion contingencies (Bates, Renzaglia, and Clees, 1980). A systematic procedure for increasing the amount of work required in a particular time period provides the practitioner with useful procedural guidelines and a method to evaluate the effectiveness of particular production rate contingencies. This evaluation procedure is called the changing criterion design. According to Hartmann and Hall (1976), the changing criterion design can be used to demonstrate experimental control with behaviors that can be modified in a stepwise manner. Since production rate is a variable that can be changed in a stepwise manner, the changing criterion is particularly suited for this objective. In this section, procedural guidelines will be presented for improving the production rate of mentally disabled persons in sheltered and competitive employment situations. These guidelines will address the following issues: establishing competitive work standards, conducting baseline assessment, calculating the initial criterion contingency, determining the length of criterion work periods, deciding on future criteria changes, providing student feedback, administering reinforcers, and fading program contingencies to natural employment conditions.

Competitive Work Standard

Prior to initiating a production rate increase program, a competitive work standard should be established. Ideally, this standard is obtained by observing the performance of successful employees. By observing and recording the amount of work typically completed by a nonhandicapped person in a given time period, a production rate standard can be determined. This standard has a high degree of social validity if it is obtained by observing an employee who is judged successful by his/her employer.

The Department of Labor has published recommended guidelines ("Cost Estimated Procedures for Sheltered Workshops") for determining standard production rates. For many industrial jobs (competitive and sheltered), a competitive production rate standard has been systematically determined and should be used rather than establishing one.

The competitive production rate standard is one of the criteria for successful employment. By computing the production standard to quantity of work required per minute, the vocational supervisor is provided a relative measure of a student's current level of performance and a goal for future training activities.

Baseline Assessment

The first step in implementing a production rate increase program is to conduct a baseline assessment of a student's work rate under the natural conditions of the job. The natural conditions of a job are the physical arrangements, length of work periods, supervisor instructions, and reinforcers that are typically experienced by people working at that job.

Given that the natural conditions for job performance have been established, baseline production rate is determined by recording the exact time a work period begins, the quantity of work produced, and the time a work period ends. Production rate per minute can then be calculated by dividing the number of units produced into the number of minutes worked. Graphic displays of production rate data can assist work supervisors in determining when a student's performance has stabilized (similar performance over a specified time period). When the production rate for a student stabilizes, consideration should then be given to procedures for improving work rate toward the previously established competitive standard.

Initial Criterion Contingency

A production criterion contingency is an if-then relationship that specifies a particular work requirement that must be completed in a designated time period in order to obtain a particular consequence. The initial production criterion contingency should establish a work rate requirement that the student can realistically be expected to meet. The decision regarding a realistic requirement should be made empirically by reviewing the student's baseline production rate. The initial production rate criterion should not be set at a level substantially higher than what the student has performed previously. A conservative approach would be to establish the initial criterion contingency at the average production rate obtained during baseline. This approach will increase the likelihood that students will have success in their initial experiences with the production criterion contingencies.

Criterion Work Periods

In addition to the determination of an initial work rate requirement, a decision must be made regarding the length of the criterion work periods. Ideally, the work periods that the criterion work requirements are initially applied toward should be as close as possible to a "normal" work period (e.g., two hours). For a student who has been working independently for long periods of time, the work criterion may specify an amount of work that must be completed at the end of the whole two-hour period. For a student who is less independent in his/her work performance, the criterion work periods may be as short as five to ten minutes. The shorter the criterion work periods, the more opportunities a student will have to learn the relationship between his/her work production rate and particular consequent events. Once a student is succeeding regularly with relatively brief criterion work periods, the length of the time periods can be systematically lengthened.

Criterion Change Policy

When a student's production rate stabilizes at or above an established production rate criterion, the criterion for work production should be increased. For example, if a student's production rate has met or exceeded the production criterion for at least three consecutive days and there is no upward trend evident in the data, a criterion change should be made. The size of this increase should be large enough to demonstrate improvement in performance, yet small enough to maximize continued success. One method for selecting the new production criterion would be to establish the highest production rate obtained during the previous contingency as the new criterion. However, this may be too stringent since the student has only met this level of performance one previous time. A conservative method would be to average the production rates obtained over the previous three to five days and establish the new work rate criterion at or slightly above this level. However selected, these criteria changes should continue until the student's production rate consistently meets or exceeds the competitive work standard.

However, if a student consistently doesn't work at or above an established production rate criterion, the required rate should be reduced to increase the student's chance to succeed. For example, if a student fails to meet a particular work criterion more than 50 percent of the time, the criterion should be decreased to a level within the student's consistent performance range. Failure to lower criteria in such cases may result in the student ceasing to try, and thus performing far below previous production rate levels. After the student attains success at the lower criterion, additional criteria changes can then be made.

Student Feedback

Information to the student regarding work requirements and his/her success or failure to meet the requirements should be as explicit as possible. At the beginning of the student's work period, the instructor should concretely explain that a student must complete a certain amount of work in a particular time period to obtain an established consequence. For example, the required amount of work, a kitchen timer, and the reinforcer (e.g., tokens) could be placed in front of the student and he/she told "You must finish all of this work before the timer goes off to receive ________________." If the student finished the work requirement prior to the time period ending, the supervisor would inform the student that he/she had finished prior to the bell and had earned the reinforcer. Failure to finish the work requirement would be signalled by the bell ringing and the instructor informing the student that he/she had not worked fast enough. This message can be made more clear to the student by the instructor having the student touch the incompleted work and witness the removal of the potentially earned reinforcer. Failure to work at an established production criterion should also be followed by a statement regarding future availability of a chance to work fast and earn the reinforcers.

Contingent Reinforcers

A variety of reinforcing events can be administered, contingent upon a worker performing a job at a particular work rate. These include performance feedback, social praise, paycheck, monetary incentives, tokens, and edible treats. Methods of determining individualized reinforcement systems are the following: (a) ask the individual what he/she likes to work for; (b) ask significant others (e.g., parents, teachers, siblings, etc.) what the person responds to best; (c) observe the person to determine what he/she does most frequently; and (d) encourage the person to sample various reinforcers, and observe to detect preferences. In addition to determining individual reinforcer preference, an analysis of the reinforcers typically administered and the schedule of reinforcer delivery at community employment sites should be conducted. This analysis will provide the instructor with the reinforcement conditions that the program eventually must match.

In administering the reinforcers for accomplishing an established production criterion, the instructor should deliver the reinforcer immediately after the student has completed the required amount of work. Further, the instructor should specifically state the contingency in an enthusiastic manner.

The reinforcer selected should be a consequent event that most closely resembles the natural reinforcement conditions and results in student improvement. By selecting the most natural reinforcing event, the program contingencies can more easily be faded to the system typically found in the community employment situation (e.g., weekly paycheck). Failure to individualize a reinforcement system and subsequently fade to natural contingencies will not result in optimal performance by mentally disabled students.

Fading of Program Contingencies

For a student to succeed in a community employment situation, he/she must eventually perform satisfactorily under the natural conditions of the job. Therefore, if unnatural means are used to improve a student's vocational skill level, these conditions must be systematically faded to the conditions typically encountered in community employment.

After several criterion changes have been made, a student's performance may equal or exceed the production rate standard. At this time the length of the criterion work period can be systematically increased. For example, if the criterion contingencies had been applied toward a 30-minute work period, this period could be lengthened gradually to 45 minutes, 60 minutes, 90 minutes and two hours. Once entire work periods (i.e., two hours) are included in the criterion contingencies, additional changes can be made by increasing the criterion period to two work periods, an entire work day, two work days, and a full week of work.

In addition to increasing the length of the work periods to decrease the frequency of these contingencies, the regularity of the criterion contingencies can be made more variable. For example, rather than apply the contingencies continuously to work performance, a progressively more variable schedule of contingencies can be implemented. This schedule may initially result in every other work period being subject to the criterion contingencies and eventually in approximately one out of every ten. As a consequence of increasing the length of the criterion periods and the variability of the contingencies, the student's performance becomes increasingly under the control of natural job conditions.

The additional reinforcers that are used to promote production increases will also have to be reduced. Longer work periods and increasingly variable contingencies will result in a decrease in the frequency of reinforcement. However, if reinforcing events are used which are unnatural to the work situation, these will need to be eliminated. This is accomplished best by pairing the additional reinforcers with those that can be present in the natural work situation (e.g., tokens with social praise) and eventually reducing the additional reinforcers in a gradual manner.

Another technique that has been successfully used to reduce a student's reliance on external reinforcement, is to teach the student to self-reinforce for accomplishing a pre-established work criterion. By having the student reinforce him/herself, more frequent reinforcement may be possible in community employment situations. These more frequent incentive schedules that are possible through self-delivery may result in enhanced performance over less frequent externally administered schedules.

One final strategy that is necessary to the successful fading of program contingencies and the long-term maintenance of improved performance is the training of co-workers and supervisors in the employment environment. This training needs to be specific enough to transfer program control from the job trainers (e.g., school staff) to the persons present on the job. By teaching those in the natural environment to administer the program contingencies, long-term success of the student worker is enhanced.

The value of changing criterion production programs will be determined by how successfully these programs result in maintained performance in sheltered and competitive employment. This result is dependent on the instructor's skill in fading the program contingencies to the natural employment conditions. With careful planning toward this end, optimal production performance can be established and maintained in a variety of community employment situations.

Conclusion

For several years, people have thought that moderately and severely handicapped persons had limited vocational potential and were incapable of productive employment. However, as systematic programs have been implemented, the production improvements have been significant. Recently the changing criterion procedures that were outlined in this section have been applied to moderately and severely handicapped adolescents in a public school vocational training program. As a result, several students in this program demonstrated substantial improvements in their performance on simulated jobs in school and on actual community-based training jobs. These results are subsequently presented in this monograph as a series of brief case studies.

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Improving the Production Rates of Secondary-aged Moderately Mentally Disabled Students in a School-based Work Activity Center

by: Diane Larsen, Educator, Moderately Disabled; Lois Hickman, Teaching Assistant; Barb Adams, Vocational Training Aide; Susan Teas, Work Experience Instructor, and Paul Bates, Assistant Professor

The primary objective of P.L. 94-142 (Education of All Handicapped Children Act) is to provide an appropriate education for all handicapped persons so that they might obtain their maximum degree of self-sufficiency. Since holding a job in our culture is often the yardstick by which self-sufficiency is measured, school-based programs must be geared toward promoting the employability of all students. Moderately mentally disabled persons have not attained a great deal of self-sufficiency. Much of this can be traced to this group's lack of employment or underemployment following graduation from school. To change this result, school-based programs must develop a comprehensive series of vocational training experiences for all students. Program objectives in these experiences will need to include acquisition of a variety of different vocational competencies, productive performance, and demonstration of job-related social skills.

Project A.M.E.S. is a school-based program for moderately and severely handicapped students that is designed to provide these comprehensive training experiences. One component of Project A.M.E.S. is a school-based work activity center. Students are taught basic work skills and systematic efforts are directed at improving the productivity of all students. Given the importance of work productivity for payment (i.e., piece rate) and the need to compete with nonhandicapped workers, emphasis in this workshop has been placed on identifying effective strategies for improving the production rates of mentally disabled workers.

In this section, several case studies are presented. These case studies are documentation of intervention procedures that have resulted in significant productivity improvements by secondary-age, moderately disabled adolescents.

Case Study One

Productivity Improvement on a Simulated Packaging Task in a School-Based Work Activity Center

Method

Student

Karla was a 15-year-old, moderately mentally disabled female. She was toilet trained, fed herself, was ambulatory, and could engage in simple conversation. Karla's vision was impaired by a moderate degree of bilateral strabismus. Karla attended the school-based work activity center for approximately three hours of training on a daily basis.

Physical Setting and Job

Karla was involved in the school-based simulated workshop. This workshop was approximately 20 feet by 20 feet. Between 6 and 10 students were present in the workshop at all times. Karla's work schedule in the shop included two 75-minute work periods, each separated by a 15-minute break. Her job was a simulated work task consisting of placing a hard plastic disc in a plastic bag. The competitive work standard for this job was 10.8 bags per minute.

Procedures

During baseline conditions, Karla was presented with her work materials and informed that her job was to bag plastic discs. Throughout baseline and the subsequent program phases, Karla was provided with occasional social praise and prompts to continue working.

After baseline conditions, Karla was exposed to a series of changing production criteria. Each criterion was explained to Karla by telling her that she had to complete a specified amount of work prior to the break or end of the work day for her to be able to go to break or lunch respectively. If Karla finished all of her work prior to the end of the period, she was praised by her teacher for being a fast worker, told that she could go to break or lunch, and provided with more work to do until the period ended. Karla's failure to finish in time was consequented by her teacher telling her that she had not worked fast enough and informing her that she must finish prior to leaving the work area.

As Karla demonstrated the ability to produce at a particular criterion, this criterion was raised to require more work on Karla's part. As a general rule, the work criterion was increased after Karla's performance stabilized at each criterion work level.

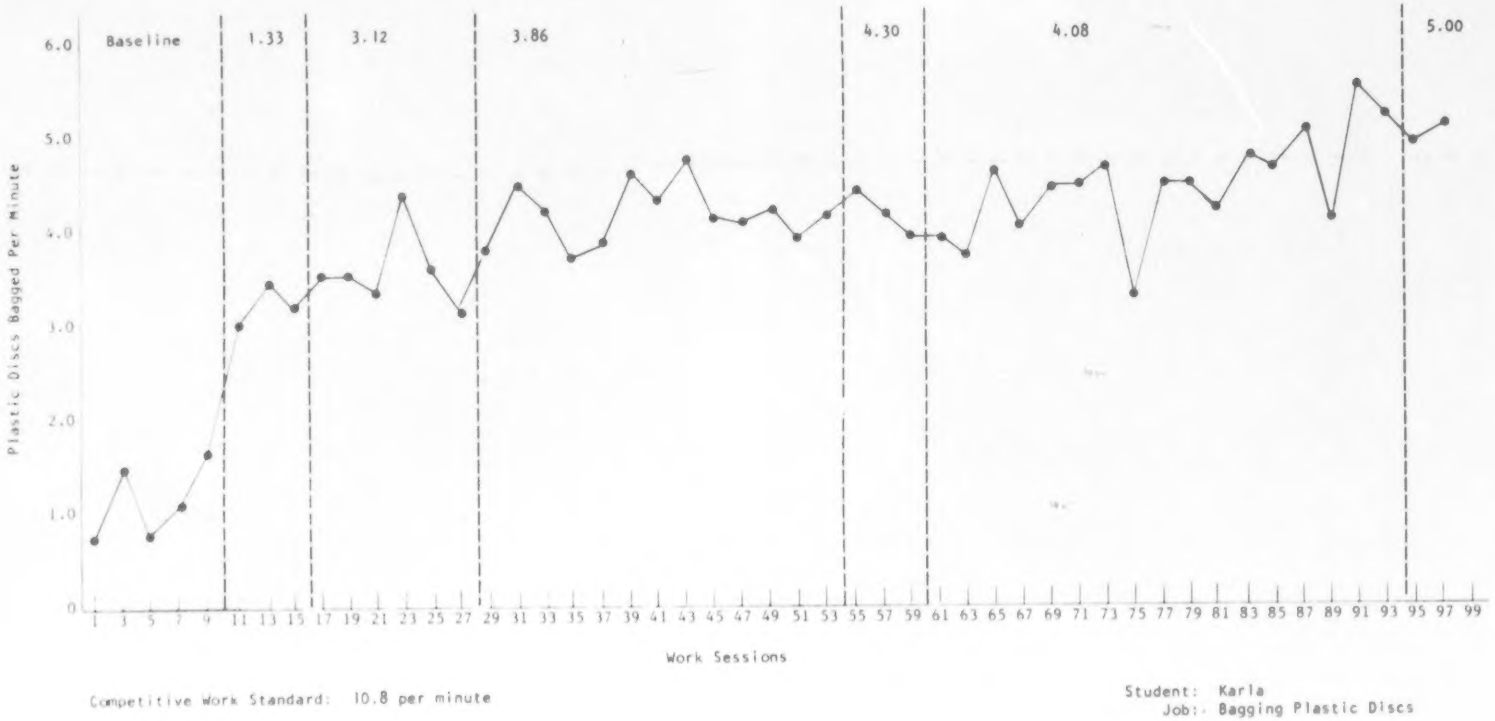
Results and Discussion

Inspection of Figure 1 reveals that Karla made a great deal of progress from day 1 of the program to day 87 of the program. Specifically, her production on bagging discs increased from less than 10 percent of the competitive work standard to approximately 50 percent of this standard. A series of six criterion changes were made in the required work rate. In all but one of these criterion changes, Karla's average performance exceeded her previous performance levels.

Although Karla's work production had not attained competitive production levels by the end of the program, her performance improved 500 percent. In addition, there was no indication in her production data that future improvements would be impossible. Karla's improvements were achieved in approximately one school semester.

Figure 1

Work Production Increases as a Result of a Changing Criterion Procedure



Case Study Two

Productivity Improvements by
Two Moderately Disabled Students
on a Subcontract Vocational Assembly

Method

Students

Brenda was a 17-year-old mentally disabled female who was enrolled in the senior level MD classroom. She could independently perform her self-care skills and could engage in verbal conversations. Brenda's fine motor skills were good, but her performance was often characterized as lazy or unmotivated. During the 1979-80 school year, Brenda attended the school-based sheltered workshop for approximately three hours daily.

John was a 17-year-old mentally disabled male who was also enrolled in the senior level MD classroom. John has Downs syndrome. He has all of his basic self-care skills and engages in verbal conversation, although he is frequently difficult to understand. During the first semester of the 1979-80 school year, John was also involved in daily vocational training in the school-based workshop.

Setting and Job

Brenda and John attended the school-based workshop. The school shop was located in a room approximately 20 feet by 20 feet. Between 6 and 10 students were present in the workshop at any one time along with two or three staff persons. The school workshop was certified as a work activity center.

The job that Brenda and John were assigned to complete was subcontracted from a local chemical supply manufacturing company. This job consisted of fastening a metal plate to a plastic test tube holder by putting a screw through the two pieces and tightening a nut on the back side. This job required a great deal of fine motor control since the entire product was less than an inch long and a half-inch wide.

Procedures

After Brenda and John acquired the ability to assemble the test tube holders, they were told to produce the units during their work periods. Initially, baseline production rates were recorded. During baseline, Brenda and John were provided with occasional social praise and work prompts, but no specific production contingencies were in effect.

After 12 days for Brenda and five days for John, production contingencies were initiated for both students. The first production contingency for these students required that they produce at least as fast as their average baseline rate for them to be able to go to break and lunch on time. If they did not work this fast, they were required to stay in the workroom until they finished the assigned amount of work. Once these students were working consistently at a level of production above their baseline rate, a second criterion contingency was initiated. For each student, this contingency required a level of performance that was slightly above the rate at which they had been producing just prior to the criterion change.

Results and Discussion

Inspection of Figure 2 reveals that Brenda demonstrated considerable improvement from her first work days on test tube holder assembly to the last few days. During baseline, her performance ranged from .21 units per minute to .48 units per minute. Brenda's range in production rate during the first criterion contingency was between .48 units per minute to .58 units per minute. Finally, during the second criterion contingency, her performance ranged from .52 units per minute to .60 units per minute. In relation to percentage of the competitive work rate, Brenda improved from an average of 33 percent during baseline to 50 percent during the second criterion. Due to completion of the subcontract, Brenda's production of these units was terminated after 21 working days.

John's production rate on the test tube holders was considerably below Brenda's during all program conditions, although he demonstrated considerable improvement (refer to Figure 3). During baseline, John's production rate averaged approximately .09 units per minute. This means that John was taking approximately 11 minutes to complete each unit. After the second criterion, John's production rate averaged .20 units per minute, or five minutes for each unit. This represents greater than a 100 percent improvement from his baseline performance.

Both Brenda and John improved considerably in their production of test tube holders. Improvement was still being evidenced when the program was terminated due to a completion of the subcontract.

Conclusions

In summary, the above case studies offer further evidence that the performance of moderately mentally disabled students can be substantially improved. The improvements made by these students provide them with a base from which further sheltered and nonsheltered employment competencies can be acquired.

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Figure 2
Test Tube Holder Assembly Increases as a Result of a Changing Criterion Procedure

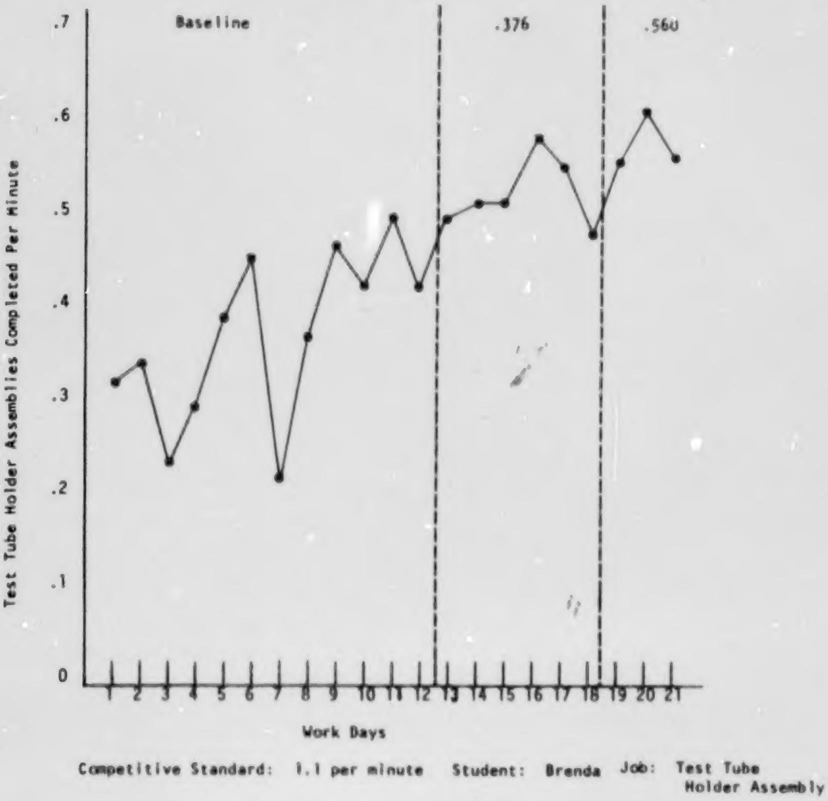
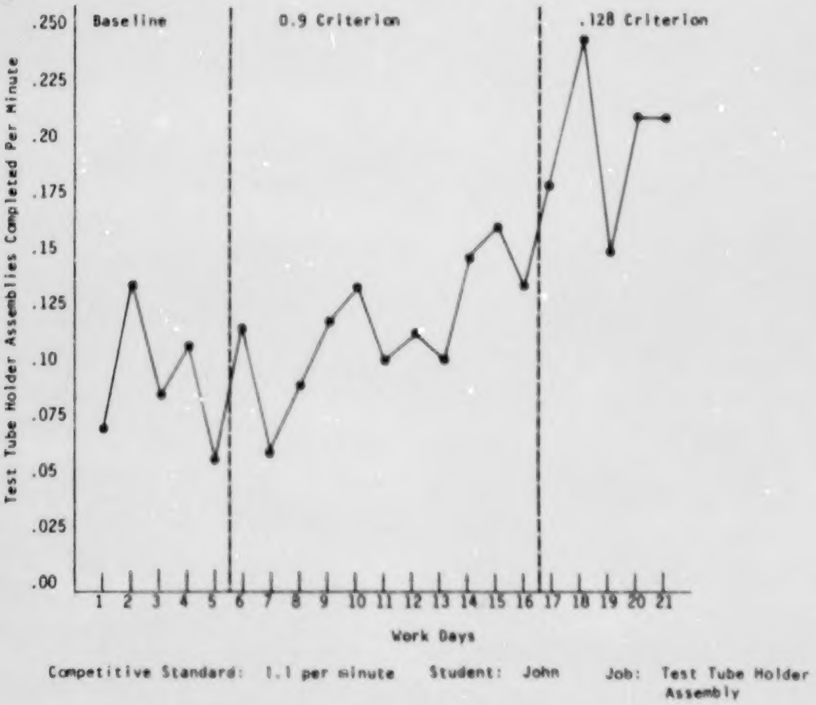


Figure 3
Work Production Increases on Test Tube Holder Assembly as a Result of a Changing Criterion Procedure



Improving the Production Rates of Intermediate-Aged Moderately Mentally Disabled Students on Simulated-Work Tasks

by: Bonnie Twedt, Intermediate Classroom Teacher; Roberta Hurd, Intermediate Classroom Aide; Barb Adams, Vocational Training Aide; Susan Teas, Work Experience Coordinator; and Paul Bates, Assistant Professor

A person's employment success is a function of several factors. Among these factors is the speed of task production. In nonsheltered and sheltered employment, production rate is often the basis upon which a person's wages are based.

One of the more successful intervention procedures for improving the production rate of mentally disabled workers is the changing criterion procedural design. This design has been useful in both sheltered (Bates, Renzaglia, & Glees, 1980) and nonsheltered settings (Davis, Bates & Cuvo).

The following discussion presents the results of school-based applications of the changing criterion procedural design. This application is with intermediate-aged, moderately disabled students. The production tasks were simulations of tasks potentially encountered in sheltered or nonsheltered employment.

Method

Student Description

Missy was a 13-year-old, moderately mentally disabled female. Missy was toilet trained, fed herself, was ambulatory, and could verbally label a variety of objects. Missy attended vocational training for approximately one hour each day of the school year.

Larry was a 13-year-old, moderately mentally disabled male. Larry was toilet trained, fed himself, could converse verbally, and was ambulatory. Larry attended vocational training for approximately one hour each day of the school year.

Setting and Job Descriptions

Both Missy and Larry were involved in vocational training in the school-based workshop. This workshop was approximately 20 feet by 20 feet. Approximately 6 to 10 students were in the workshop at all times and between two and three supervisors were usually present.

Missy's job was IBM card clipping and packaging. The task analysis of this job was as follows: (1) pick up and count 3 IBM cards; (2) pick up one paper clip; (3) paper clip 3 IBM cards together; (4) pick up one envelope; (5) insert the 3 cards; (6) place the envelope in the basket. The norm production rate for this job was 5.2 per minute.

Larry's job was IBM card clipping. The task analysis of this job was as follows: (1) count 3 IBM cards; (2) match the cut corners; (3) pick up one paper clip; (4) place the clip on the clipped corner; (5) place the cards in the basket. The norm production rate for this job was 5.6 per minute.

Procedures

Baseline

During baseline assessment, Missy's and Larry's work was placed in front of them and they were given the general instruction to complete their work. At the end of the work period, completed work was counted. During baseline and instruction, production rate per minute was calculated, recorded, and graphed daily. Occasional social reinforcement for work behavior and reminders to continue working were provided by the teacher during all program phases. Baseline conditions were in effect for 16 days for Missy and 17 days for Larry.

Criterion Contingency

The initial criterion contingency for the students was established at their average baseline production rate per minute. A criterion contingency is a work requirement (i.e., quota) that must be completed for a student to obtain a particular consequence. In these two programs, the amount of work that the students had to finish was placed in front of them at their work table. This amount ensured that the students' production rates would equal or exceed the production rate criterion. The students were informed that they had to complete all the work in front of them prior to break if they were to earn a penny. If they finished prior to the end of the work period, they were given the opportunity to earn bonus pennies for additional work. With the pennies, the students were able to purchase snacks at break.

Once the students' production rates matched or exceeded the criterion work quota, these quotas were increased gradually. Subsequent increases in the criterion contingencies were to be made until the school year ended or the student reached the competitive work standard (norm).

Results and Discussion

Missy's baseline production rate on IBM card sorting averaged approximately 1.3 units per minute. This baseline average was approximately 25 percent of the competitive standard of 5.2 units per minute. On day 17, a criterion contingency of 1.3 units per minute was implemented (see Figure 4). Subsequent criterion changes were established at 1.38 units per minute, 1.56 units per minute, 1.75 units per minute, and 2.40 units per minute. Missy's performance gradually improved over the course of the criterion changes. On day 89, the last day of the school year, Missy's production rate reached her highest level, 3.1 units per minute. This rate was approximately 60 percent of the competitive standard for this job. From Missy's baseline performance to her final working day, she improved from 25 percent to 60 percent of the production norm. As a result, Missy's production rate more than doubled across the 89 days of the production program.

Larry's baseline performance averaged approximately 2.5 units per minute. This production rate was approximately 45 percent of the competitive work standard. Figure 5 depicts the improvement by Larry over the course of the production program. Larry's production rate increased in correspondence with criterion changes of 2.76 units per minute, 4.10 units per minute, and 5.60 units per minute. When Larry's performance stabilized at a level equal to the competitive standard (i.e.,days 73 to 77), he was shifted to another vocational training experience. From Larry's baseline performance to day 77 of the program, significant progress was evidenced. During baseline, his performance was 45 percent of the competitive standard, and at the completion of the program, his production equalled that of nonhandicapped workers. This program provides evidence that some moderately mentally disabled individuals are capable of work speeds that are equivalent to normal functioning co-workers.

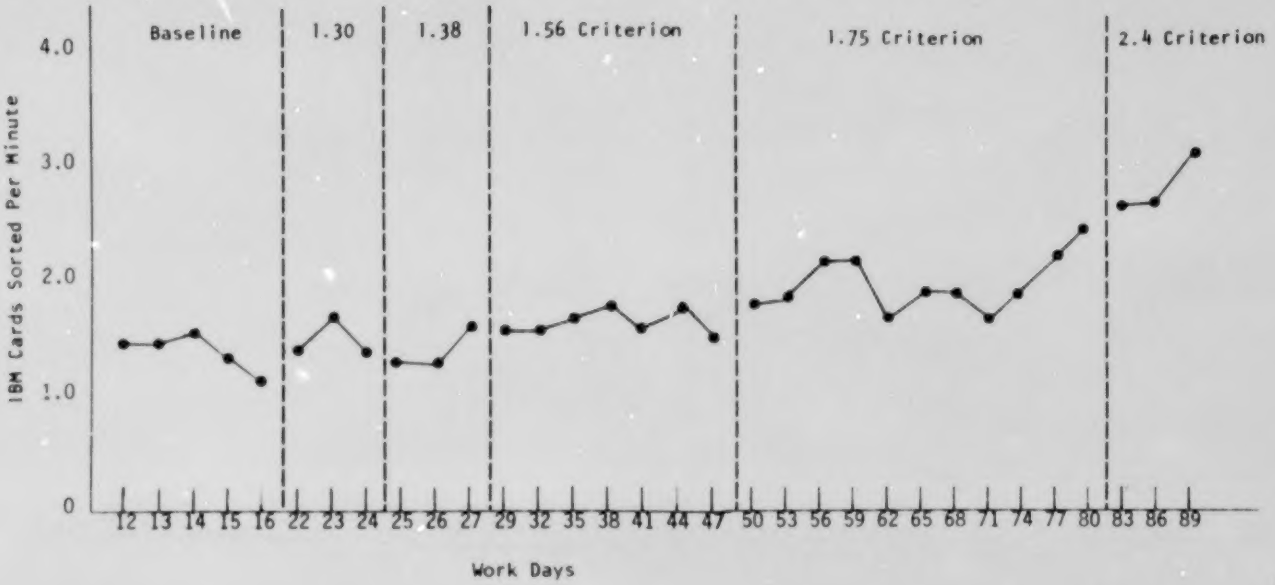
References

Bates, P., Renzaglia, A. and Clees, T., "Improving the Work Performance of Severely/Profoundly Retarded Adults: The Use of a Changing Criterion Procedural Design," *Education and Training of the Mentally Retarded*, 1980, Volume 15, pp. 95-104.

Davis, P., Bates, P., and Curo, A. J., "Social Validation of a Program to Increase the Production Rate of a Severely Disabled Woman in a Food Service Occupation," an unpublished manuscript.

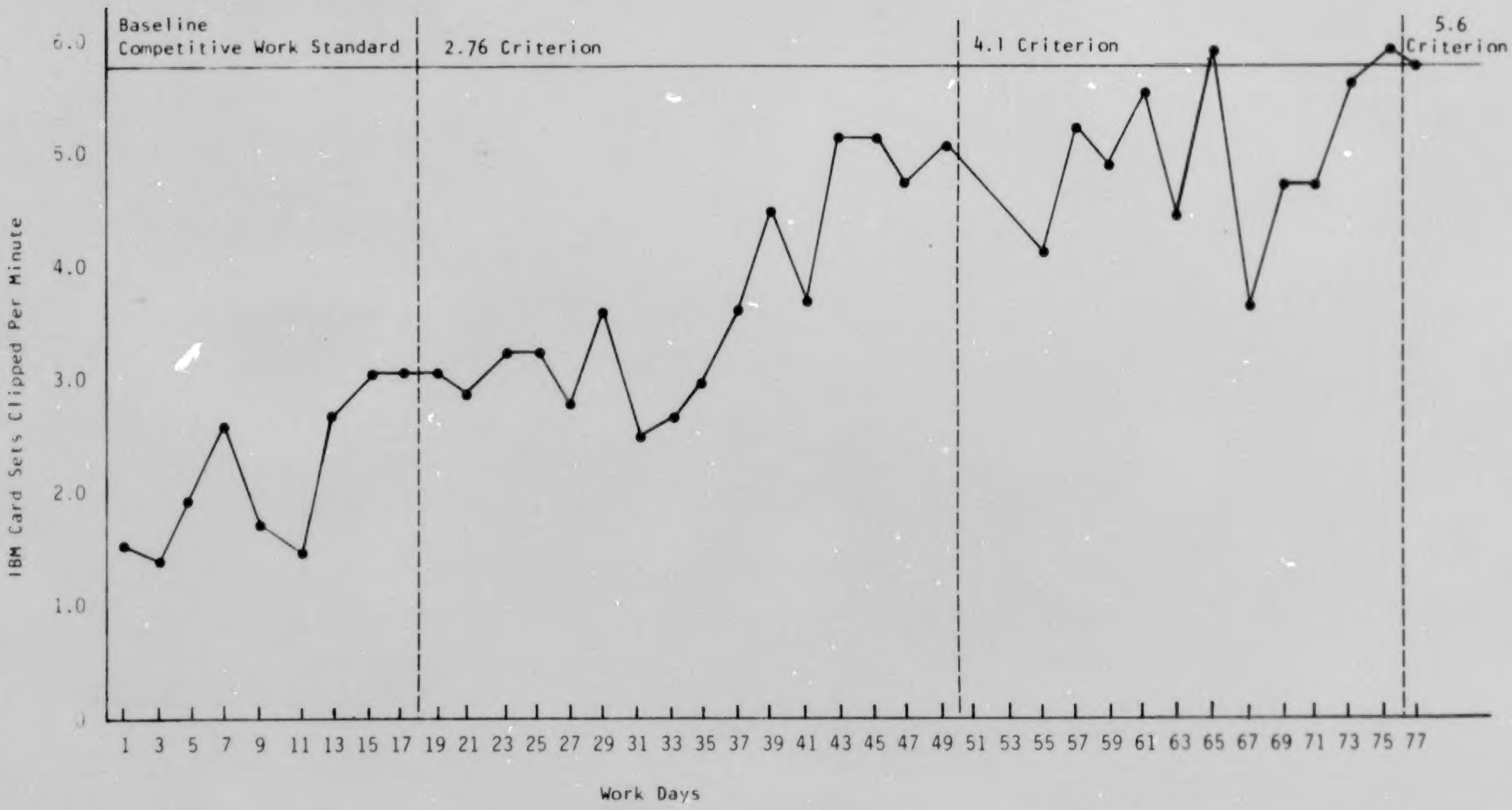
Figure 4

IBM Card Sorting Increases as a Result of a Changing Criterion Procedure



Student: Missy
Job: IBM Card Sorting

Figure 5
IBM Card Clipping Increases as a Result of a Changing Criterion Procedure



Competitive Standard: 5.6 per minute

Student: Larry
Job: IBM Card Clipping

The Use of a Changing Criterion and Token Reinforcement Card to Improve the Work Productivity of a Profoundly Retarded Adolescent

by: Susan Henritz, Educator, Severely/Profoundly Classroom; Kathy Henryson, Teaching Assistant, Severely/Profoundly Classroom; Barb Adams, Vocational Training Aide; Susan Teas, Work Experience Coordinator; and Paul Bates, Assistant Professor

Severely/profoundly handicapped persons have traditionally been denied vocational training services due to a perceived lack of potential. However, recent program demonstrations have shown that these individuals are capable of productive performance if they are provided with appropriate instruction. Unfortunately, most of these programs have been with individuals who have been of a post-school age.

The present study was conducted as a part of Project A.M.E.S. and represents an extension of the above-mentioned program demonstrations. In this study, the procedures and results of a vocational program involving a profoundly retarded adolescent are summarized.

Method

Student

Laurie was a 17-year-old profoundly mentally disabled female. Laurie had basic self-help skills of toileting, dressing, and feeding herself. She was nonverbal, but could produce manual signs for her basic needs. Laurie was ambulatory and attended the school-based workshop for approximately two hours a day, five days a week.

Setting and Job Description

All vocational training took place in the school-based work activity center. This workshop was approximately 20 feet by 20 feet. Approximately 6 to 10 co-workers and two to three supervisors were usually present during work time.

Laurie's job was to empty three index cards from business-size envelopes and sort the contents by color. Upon entering the workshop, Laurie was to obtain three bins (size of 5 inch by 3 inch index cards) and place them on her work table. She then obtained a 14 inch by 10 inch wire basket and placed it next to the three bins. The envelopes that Laurie needed to sort were pre-counted in stacks of 50 and were placed on the table in front of her. When signalled to begin work, Laurie was to pick up one stack and begin emptying the contents of the envelopes. Each envelope contained three different colored index cards that were sorted into the bins.

Procedures

Initially, Laurie's performance was recorded and no contingencies were in effect for productivity. After her performance stabilized, contingencies were placed on productivity at a pre-established criterion level. For example, if Laurie needed to empty 200 envelopes during a work week to reach a particular work criterion, a token card was developed for her that had four spaces. After each stack of 50 was finished, Laurie was taught to self-reinforce by placing a penny on one of the four spaces on her token card. After each lot of 50 envelopes was emptied, her teacher also praised her for good work. When all four spaces on the token card were filled, Laurie was escorted to the token exchange center and allowed to select a secondary reinforcer. Secondary reinforcers included grooming aids, trinkets, and an assortment of miscellaneous donated items. At the end of each work week, a decision needed to be made regarding the appropriateness of a particular work quota. Several changes were made over the course of Laurie's program.

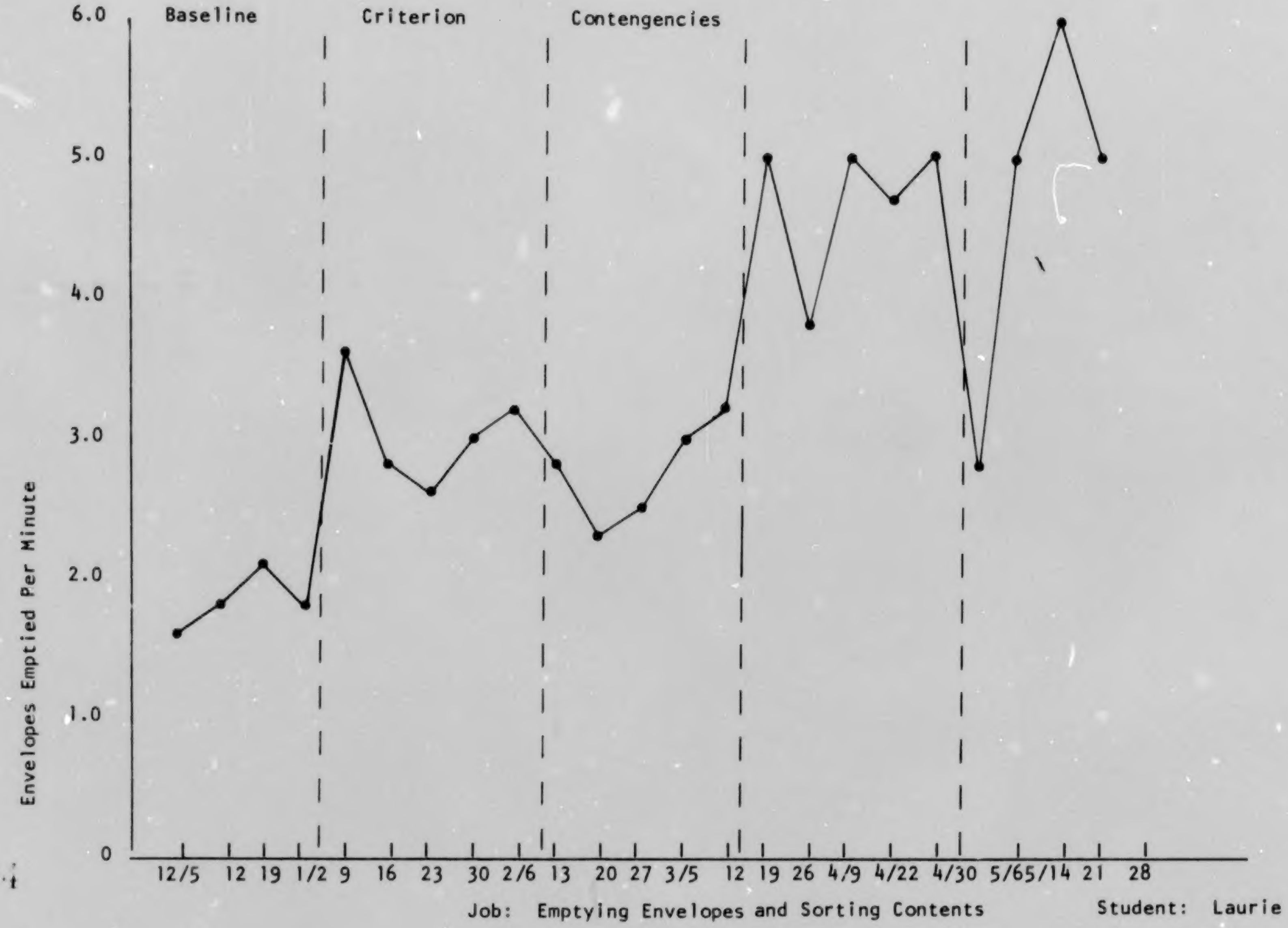
Results and Discussion

Inspection of Figure 6 reveals that Laurie made substantial progress across the 23 weeks of the study. Her weekly averages during the first three weeks were between 25 percent and 50 percent of those averages obtained during the final three weeks.

Across the course of this program, Laurie made similar improvements in other important work habits. She learned to organize her work, reinforce herself, and stay on task for extended periods of time.

The improvements made by Laurie point to the possibilities of a vocational future that will enable her to achieve a degree of self-sufficiency. Since Laurie has a few more years in public education, it is still possible to continue similar programs with her and further expand her vocational repertoire. If programs such as this were started for all profoundly retarded persons at earlier points in their school experience, it is interesting to contemplate how far they might progress toward being a contributing, self-sufficient community member.

Figure 6
Production Increases Program



Facilitating the Success of a Moderately Mentally Disabled Adolescent in Nonsheltered Competitive Employment: the Use of Changing Criterion Contengencies to Improve Vocational Productivity

by: Collette Erickson, Vocational Training Assistant; Susan Teas, Work Experience Instructor; and Paul Bates, Assistant Professor

Moderately mentally disabled persons have not typically been considered as candidates for nonsheltered competitive employment. Consequently, most school-based training programs have been geared toward preparing individuals to succeed in sheltered employment settings. Unfortunately, a person's earnings in sheltered employment seldom amount to enough to offset the need for continued disability payments by the federal government. This results in prolonged dependency and detracts from the goal of self-sufficiency.

In Project A.M.E.S., vocational training is designed to maximize success in nonsheltered competitive employment. The on-the-job training model of Project A.M.E.S. makes it possible to conduct systematic vocational training at the actual job site in the community. If moderately mentally disabled persons can function successfully in nonsheltered competitive employment, self-sufficiency becomes a possibility.

In this section, data are presented on one subject from two different vocational placements. In both work experiences, work production rate was considered to be important for success. Since the changing criterion procedure has proven effective for improving production rate, this procedure was used in both case studies reported in this section.

Method

Subject

Mark was an 18-year-old moderately mentally disabled male. Mark was toilet trained, fed himself, was ambulatory, and could engage in conversational speech. He had good fine motor skills and was responsive to social approval. Mark was involved in the school-based work activity center for three hours a day prior to being placed in the nonsheltered work experience.

Case Study One

Setting and Job

The physical setting for Mark's on-the-job training position was at Industrial Processing, a manufacturing plant in Ames, Iowa. This plant employs 28 persons and the primary task involves chromeplating industrial parts. Mark's job at this plant was racking air nozzles for the chrome plating process. The requirements for this job involved the placement of 15 air nozzles on a wire rack. Periodically, the floor supervisor collected all completed racks and transferred them to the chromeplating area.

Procedures

During the first 28 days of Mark's on-the-job placement, school staff concentrated efforts on teaching him how to complete the basic job requirements. Mark needed instruction on how to tie the wire rack at one end to prevent air nozzles from slipping off. In addition, a counting aid was developed for Mark so that he would reliably place 15 air nozzles on each rack. This aid was made out of two egg cartons. By adding three egg holders from a second carton to the 12 of the first, a 15 nozzle counting aid was developed. Mark was taught to place a nozzle in each egg holder and when all holders were filled, he was then instructed to place all 15 on a wire rack.

During the first 28 days, Mark's production rate was recorded daily by his on-the-job supervisor. This was accomplished by recording the time Mark began work, the number of nozzles racked, and the time Mark finished work. Production rate per minute was calculated by dividing the number of minutes worked by the number of nozzles racked. This rate per minute was then divided by the competitive work standard to determine Mark's productivity percentage of the competitive standard. This percentage was calculated and graphed daily during all program conditions.

On the 29th program day, Mark was given the opportunity to earn monetary incentives for his completing a particular quota of air nozzles. As Mark had success, these quotas were increased. Each day that these production criteria were in effect, Mark's trainer/supervisor explained the contingencies to him. At the end of the work day, the trainer/supervisor informed Mark whether or not he had achieved the required criterion.

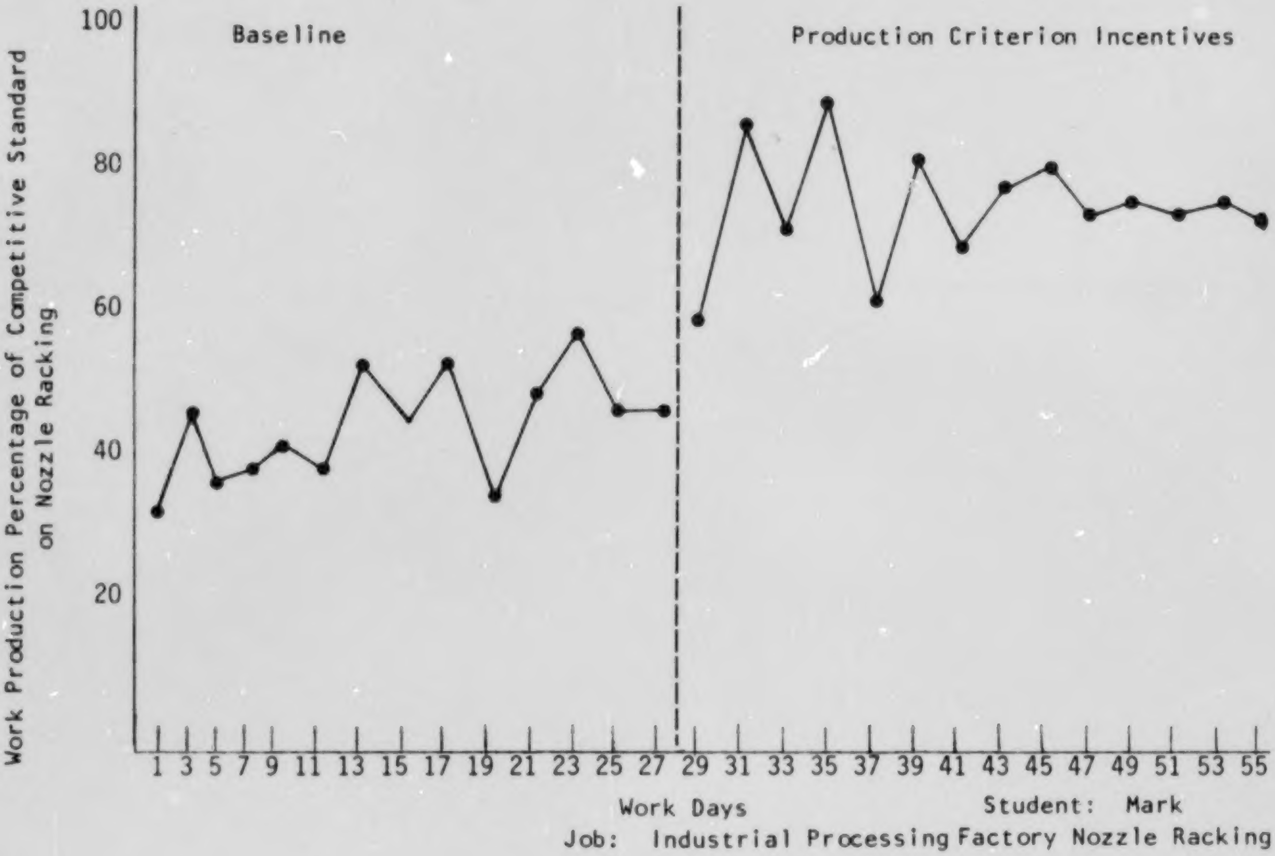
Results and Discussion

During the baseline, Mark's production rate averaged approximately 45 percent of the competitive work standard. After the production criterion incentives were instituted, Mark's rate increased substantially. On one occasion, his production rate was 87 percent of the competitive standard. During the final week of Mark's placement at the processing plant, his production rate averaged approximately 71 percent of the standard (See Figure 7).

After 55 days in the processing plant, a program decision was made to expose Mark to a new vocational training experience. At the completion of Mark's program, he had improved his work performance approximately 60 percent over baseline level. Mark's response to the production criterion increases has indicated that he is capable of much improved performance if he is exposed to appropriate program contingencies.

Figure 7

Work Production Increases in Competitive Employment (Industrial Processing) as a Result of Criterion Incentives



Case Study Two

Setting and Job

The physical setting for Mark's second on-the-job training position was at Bourns Precision Electronics, a manufacturing plant in Ames, Iowa. This is a large plant including several departments and several hundred employees. Mark's job in the plant was to test the resistance in circuitry chips. Each circuitry chip had two contact points. For Mark to test each chip, he had to place a metal prong on each contact point and discriminate the chip's resistance on a machine. Depending on the chip's resistance, it was placed in the appropriate pile.

The circuitry chips were either rectangular or circular. Rectangular chips were approximately one-half inch in length and the circular chips were approximately one-half inch in diameter. Mark was required to use two different machines. One of these machines had a black dial that indicated the resistance of each chip. The other machine had several color coded lights that would light up to indicate the amount of resistance in the chip.

Procedures

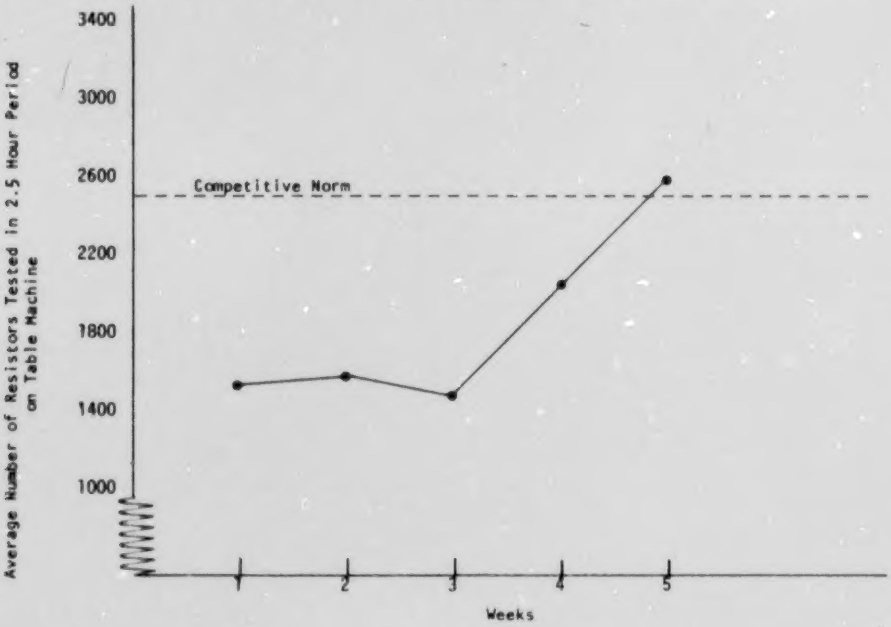
At the beginning of a work period, Mark was given a bag of chips to be tested and was assigned to a particular machine. The number of chips in the bag was precounted to indicate to Mark the number of chips that he needed to complete in a particular time period. If Mark completed the required amount of chips, he received a monetary bonus. Failure to complete the requird amount was followed by the instruction to try harder the next time.

On different days, Mark was assigned to work on the dial machine and the light coded table machine. The work requirements were slightly different for each machine.

Results and Discussion

Over the course of five weeks, Mark's performance on each machine improved to the competitive work standard. Inspection of Figures 8 and 9 reveals that Mark made steady improvement across the final three weeks of his placement at the manufacturing plant. These gains have again demonstrated that Mark can make significant performance gains in nonsheltered, competitive employment. In this study, Mark's final levels of performance equalled that of his co-workers.

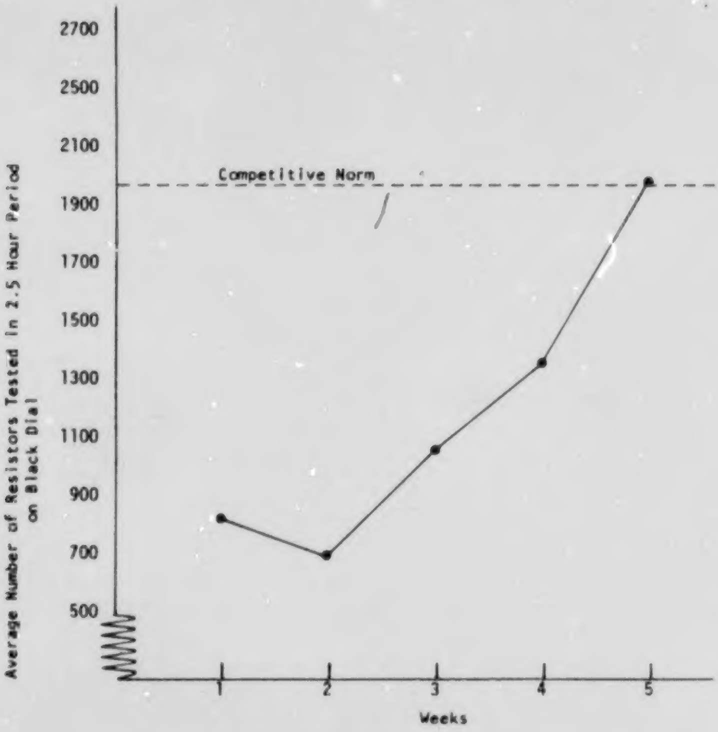
Figure 8
Competitive Employment Production Increase on Resistor Testing (Table Machine)



Competitive Standard: 2500 in 2.5 hrs. (1,000 per hr.)

Student: Mark
Job: Resistor Testing

Figure 9
Competitive Employment Production Increase on Resistor Testing (Black Dial Machine)



Competitive Standard: 2,000 in 2.5 hrs. (800 per hr.)

Student: Mark
Job: Resistor Testing

Attending to Task in a Public School Vocational Training Program

by Barb Adams, Bonnie Twedt, Diane Larson, Susan Henritz, Roberta Hurd, Lois Hickman, Kathy Henryson, Collette Erickson, Paul Bates, and Susan Teas.

Beyond the importance of being able to perform the skills required of a particular job, it is critical that a worker display additional appropriate work habits. Working consistently at an assigned job (attending to task) is a set of behaviors that will contribute toward one's employment success. Attending to task can be measured in terms of the percentage of time that a worker is engaged in behaviors that are functional to task completion. An employer is more likely to hire a worker who stays with his/her job for long periods of time without requiring frequent reminders to continue working. Since attending to task is a performance variable that influences vocational success, efforts must be made to measure and improve a student's percentage of time spent working during an established work period. If a teacher can demonstrate to a prospective employer that a student completes a variety of vocational assignments with 95-100 percent attending to task, the employer has greater confidence in the decision to hire a mentally disabled student.

Method

In Project A.M.E.S., all of the students involved in the school-based workshop and community-based vocational training experiences were assessed once a week for attending to task. Attending to task was defined as engaging in behaviors that were functional to task completion. These behaviors included manipulating materials, transporting items to and from supply bins, and organizing work materials. Examples of behaviors judged as nonattending were staring into space; repetitive, nonfunctional manipulation of work materials; hand flapping; and sleeping.

Attending to task data sheets were prepared for all students. Once a week a vocational training aide observed each student in the workshop for a ten-minute period and recorded attending to task information. A momentary time sampling recording procedure was used. With this procedure, the observer recorded the presence (+) or absence (-) of attending behavior that occurred at the moment a 30 second interval terminated. At the end of a ten-minute observation period, 20 recordings were made. An attending-to-task measure was calculated by determining the percentage of intervals scored plus (+). This percentage was then transferred to a graphic display.

For the students involved in community vocational training experiences, attending to task was recorded in an identical manner by a training aide. In the community, these recordings were done at times when the student knew that he/she was being observed and at other times when he/she was unaware that the observation was being done.

Results and Discussion

Attending to task data are presented for students involved in the school-based vocational workshop. These data are presented for four students enrolled in the intermediate mentally disabled class, two students in the secondary mentally disabled class, and two students from the severe/profound secondary class. In viewing this information, the reader must keep in mind that these observations represent a very limited sample of the student's vocational behavior (i.e., 10-minute sample once a week for an entire school year).

Intermediate Mentally Disabled Attending Results

Charlotte was a 15-year-old Down's Syndrome mentally disabled student (IQ = 40). Prior to the 1979-1980 school year, Charlotte had never been involved in vocational training. During this past year, Charlotte received one hour of vocational training.

Figure 10 provides the reader with information regarding Charlotte's attending to task. As is evident from the graph, Charlotte's attending improved during the school year. In the first half of the year, Charlotte's average attending was 83.5 percent, while during the last half, her attending averaged 91.5 percent.

Amy was a 12-year-old Down's Syndrome mentally disabled student (IQ = 51). In 1979-1980, Amy was involved in her first vocational training experiences.

Amy's attending to task data from the 29 weeks of school, demonstrated a great deal of variability (see Figure 11). However, during the last half of the year, there was a definite upward trend in her attending performance. In the last five weeks of school, Amy's average attending to task percentage was 93 percent. This performance is in sharp contrast with her 68 percent attending average during the first five weeks of school.

Larry was a 13-year-old mentally disabled student (IQ = 52). As with Charlotte and Amy, 1979-1980 was Larry's first experience in vocational training.

Inspection of Figure 12 reveals that Larry's attending to task improved throughout the year. In the first half of the year, Larry's average attending to task percentage was 78 percent. During the last half, Larry averaged 88 percent. Even more encouraging was the fact that Larry averaged 95 percent attending over the last four weeks of school.

The attending to task improvements evidenced by Charlotte, Amy, and Larry offer support for conducting a consistent, structured, and systematic vocational training program. If work habits can be significantly improved in one year of school, it is stimulating to ponder the vocational possibilities that might result from longitudinal programming.

Secondary Mentally Disabled Attending Results

Karla was a 16-year-old mentally disabled student (IQ = 38). In the past, Karla's vocational training experience was primarily limited to craft projects (e.g., assembly of Christmas bows).

Although her vocational experience had been limited, Figure 13 demonstrates that Karla's attending data were consistently high. A close inspection of these data indicate that improvements were noted during the year. Specifically during the last five weeks of school, Karla averaged 95 percent attending as compared to 85 percent during the first five weeks.

John was a 17-year-old Down's Syndrome mentally disabled studnet (IQ = 52). John's attending to task performance was assessed across 13 different vocational tasks. In the first half of the year, John's average attending percentage was 87 percent as compared with a 96 percent average for the last half of the school year (See Figure 14).

Both Karla and John demonstrated improvements in their attending to task. Due to their young age, these students were primarily involved in school-based training experiences. With work habits now including attending to task behavicr above 90 percent, both of these students are better prepared for community-based vocational training.

Secondary Severe/Profound

Clark was a 19-year-old Down's Syndrome profoundly mentally disabled student (IQ less than 17). Clark had been institutionalized for several years. During the 1979-1980 school year, Clark resided in a community-based group home.

In the school workshop, Clark received training on approximately 10 different jobs. Inspection of Figure 15 demonstrates that Clark's attending to task performance on these various jobs was erratic during the weekly observations. Although he never achieved a consistent record of attending behavior, Clark made significant progress during the year. In the first half of the year, Clark's average attending percentage was 50 percent. During the last half, Clark's average improved to 73 percent. At the same time that Clark was showing improved attending to task in the workshop, he was placed part time as a janitor in a community training site with 100 percent supervision.

Laurie was a 17-year-old profoundly mentally disabled female student. Prior to Project A.M.E.S., Laurie had received minimal vocational training. During the 1979-1980 school year, Laurie was involved in approximately two hours of daily vocational programming.

As with Clark's attending data, Laurie also evidenced variability in performance (see Figure 16). However, during the last half of the year, the variability of her attending was between 60 percent and 100 percent rather than between 25 percent and 90 percent.

In the last five weeks of school, Laurie was observed attending to task 100 percent of the time on four occasions. Her average attending in the last five weeks was 94 percent as compared to 69 percent during the first five weeks.

Clark and Laurie are both profoundly mentally disabled. Historically, profoundly mentally disabled individuals have been excluded from vocational opportunity due to a perceived lack of potential. The improvements made by Clark and Laurie offer evidence contradictory to historic perceptions of the vocational potential of severely/profoundly handicapped individuals. With continued vocational programming, Clark and Laurie will have the chance to dispel past myths and obtain productive employment after school graduation.

Figure 10

Attending to Task Data for 1979-1980 Vocational Training

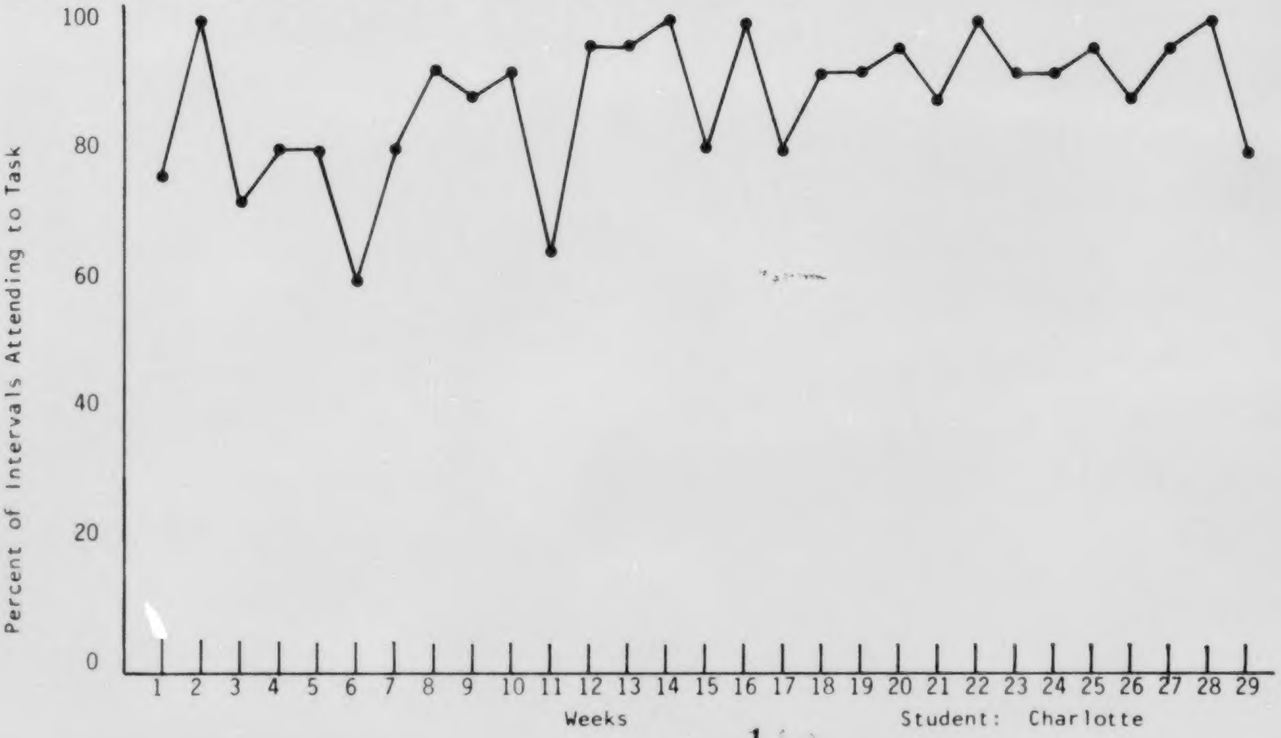


Figure 11

Attending to Task Data for 1979-1980 Vocational Training

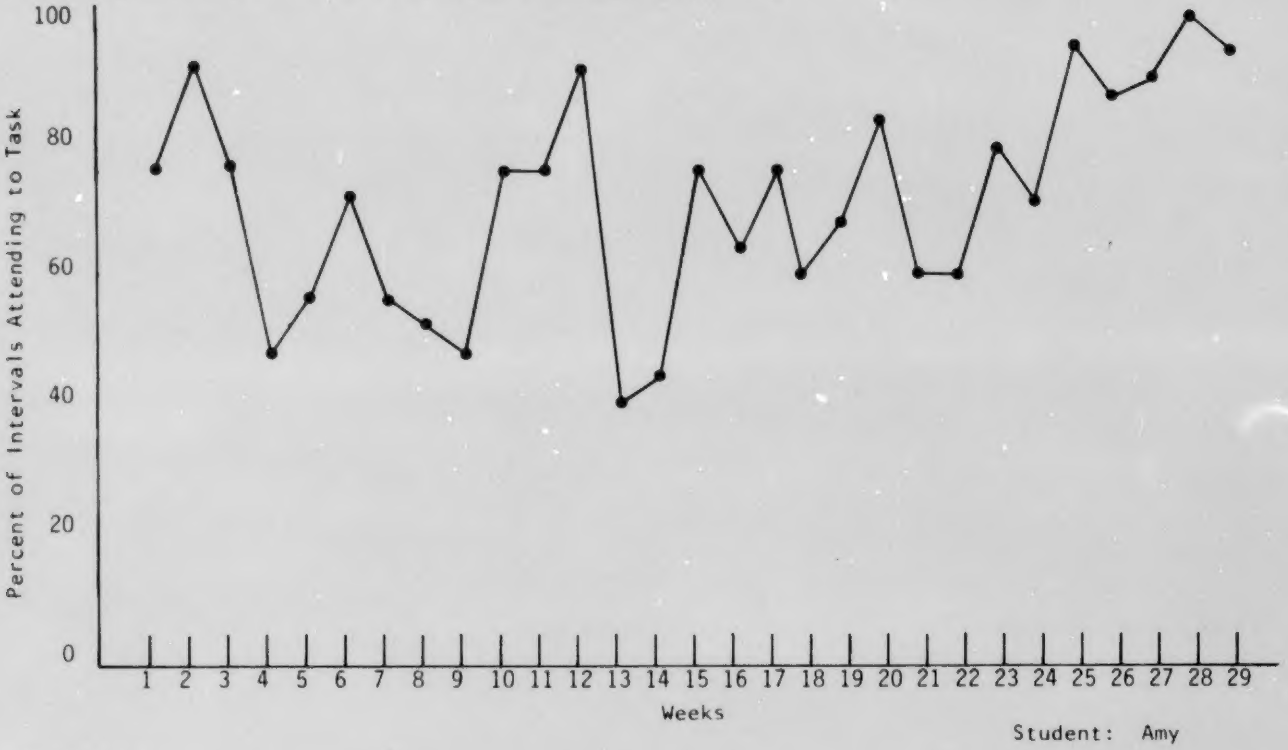


Figure 12

Attending to Task Data for 1979-1980 Vocational Training

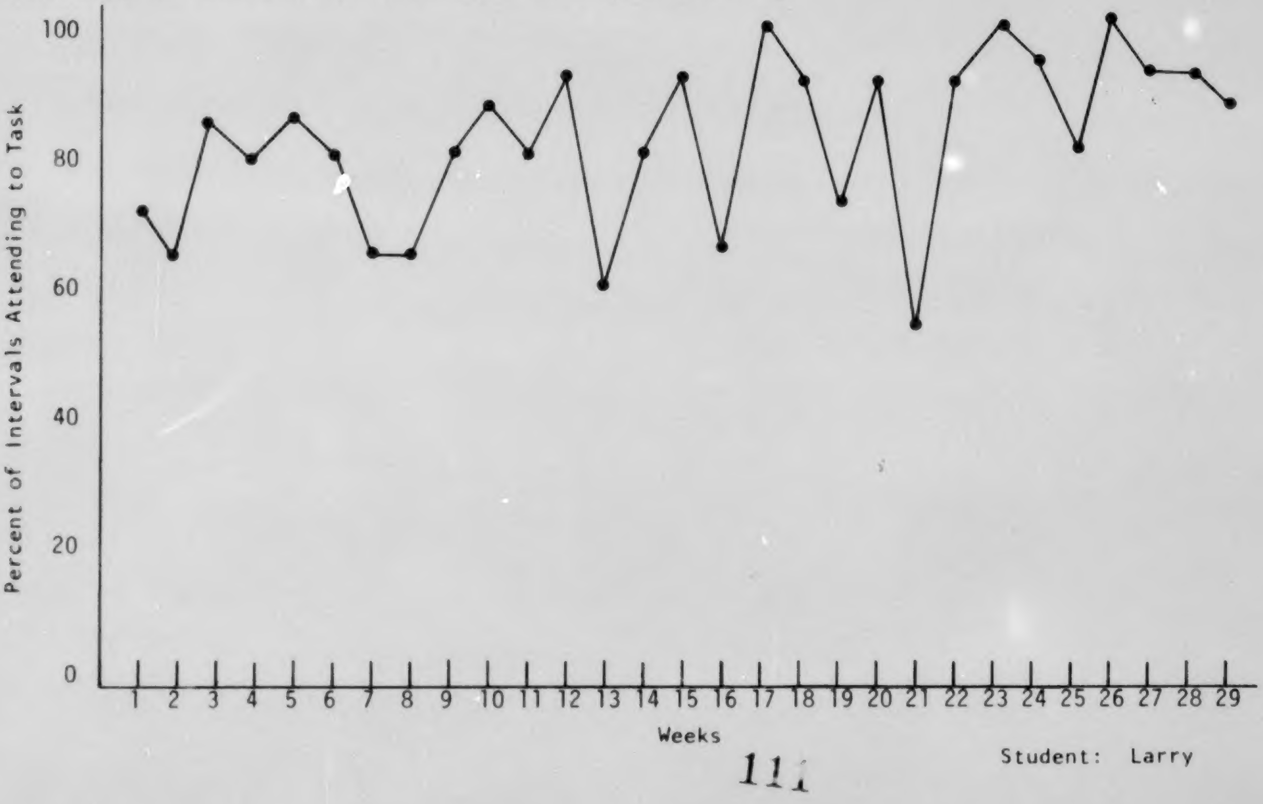


Figure 13

Attending to Task Data for 1979-1980 Vocational Training

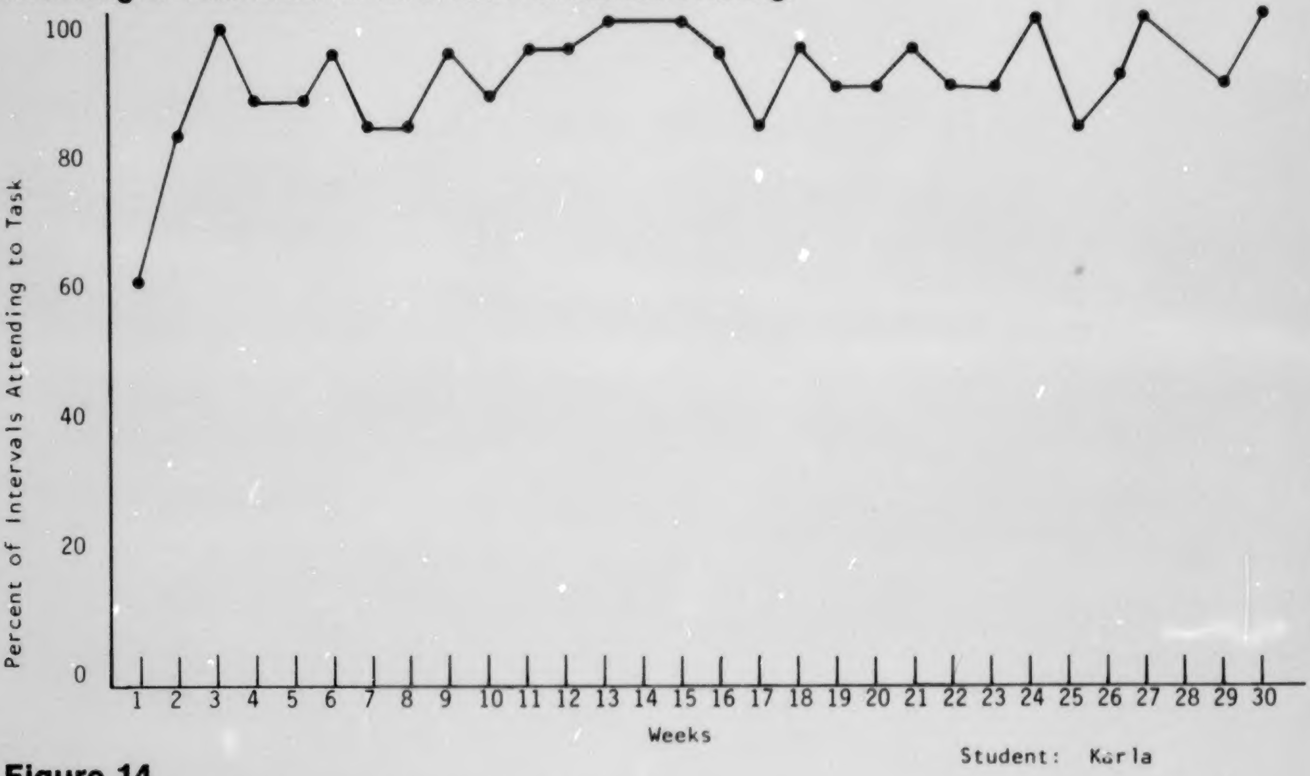


Figure 14

Attending to Task Data for 1979-1980 Vocational Training

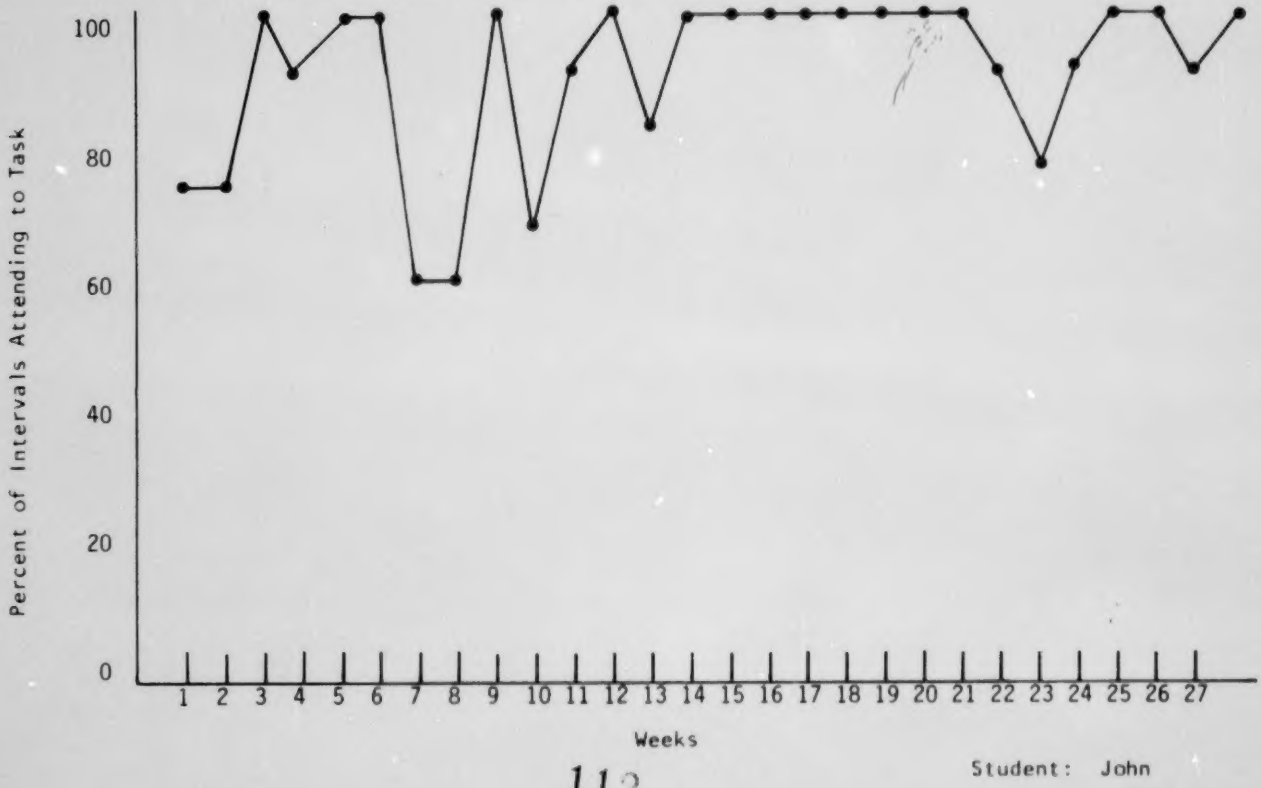


Figure 15
Attending to Task Data for 1979-1980 Vocational Training

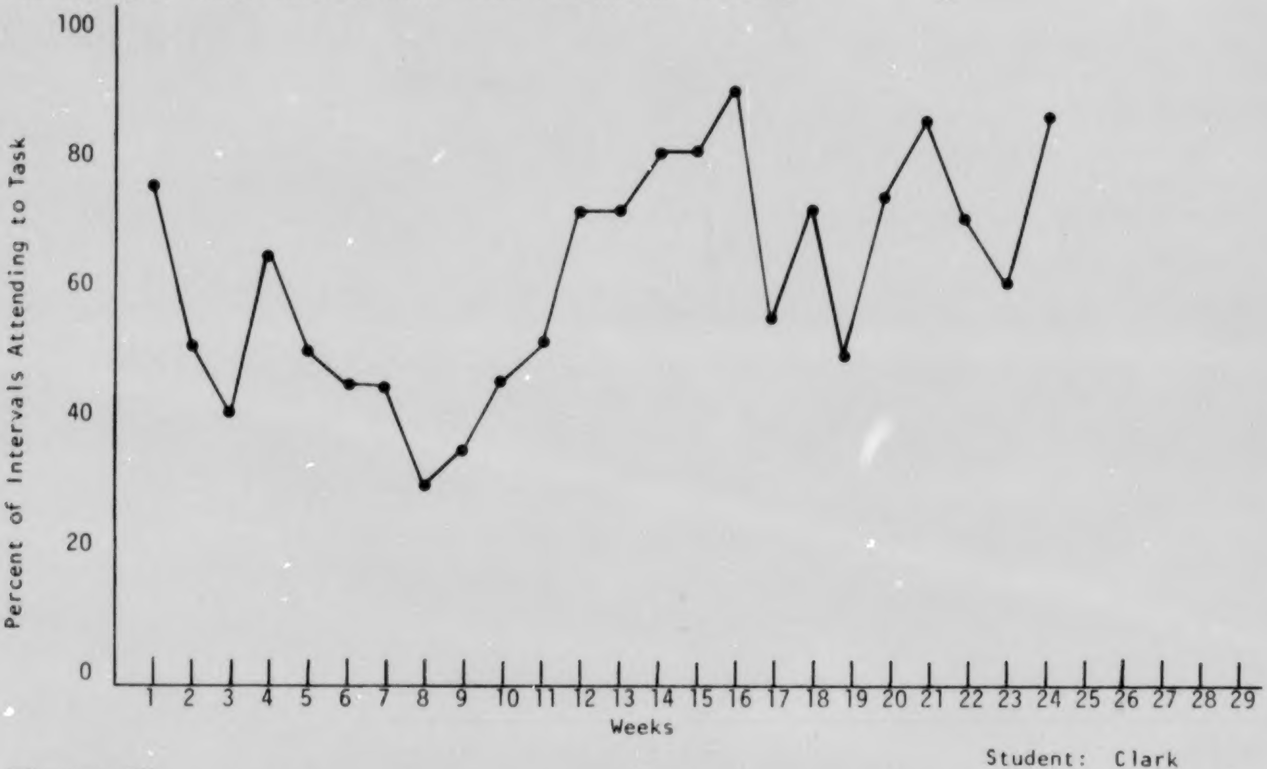
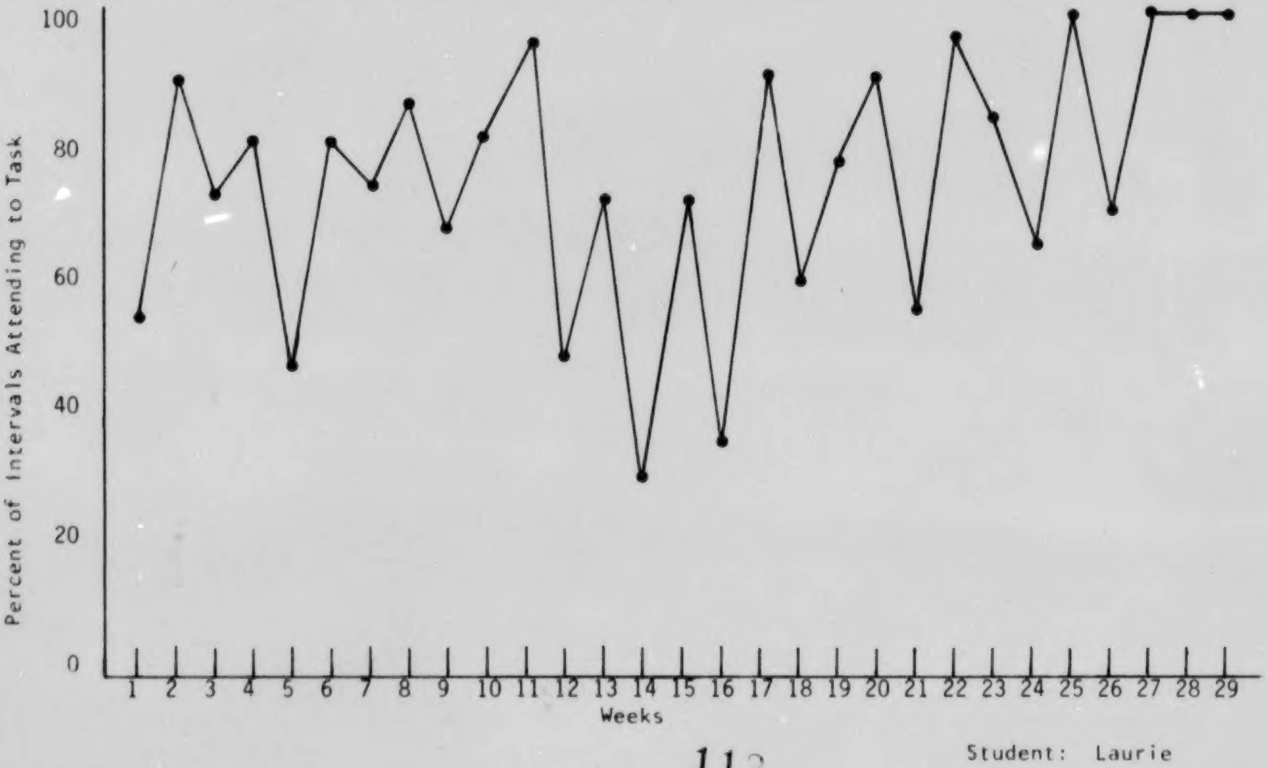


Figure 16
Attending to Task Data for 1979-1980 Vocational Training



Results of Structured Interviews with Fellow Employees as an Evaluation Tool

by Clifford E. Howe
Professor, Special Education Division
University of Iowa

The purpose of this evaluation was to test a model of providing outcome information by interviewing fellow workers regarding their perceptions of the work skills of young mentally handicapped adults. Willson-Beardshear School has cooperated with the Iowa Division of Special Education in a project to provide community work training for the moderately and severely handicapped. Several students have been placed in competitive industry and trained during the past year. As one way of judging the feasibility of such a practice, regular employees were asked to reflect their views. Structured interviews were conducted by an independent evaluator who had no competing role in the project as an advocate or trainer.

Method

Structured interviews were conducted with a random sample of employees doing essentially the same work as the trainees from the project. One student had been working for several months at each of the following sites:

- Iowa State University Memorial Union - Pastry Department
- Bourns - Electronic Manufacturing - Testing Parts
- Hach Chemical - Plastic Manufacturing - Assembling Kits
- Industrial Processing - Chromeplating

Two production workers were interviewed at the Memorial Union and 3 at each of the other companies for a total of 11 interviews. Anonymity was guaranteed and the interviewer did not know the names of the employees. Only two persons were interviewed at the Memorial Union because they were the only ones in that department. Two of the three employees at Bourn's had been preselected by the foreman as representative of that department. All others interviewed were selected at random from workers in the area. Interviews lasted approximately 15 minutes.

Results

The results of the interviews have been summarized in Table 1. Although 11 employees were interviewed, the responses related to 4 students from the Willson-Beardshear program. Two of the trainees were women and two were men. The majority of negative responses centered on one girl who was perceived as being "spoiled" and not trying on some days.

The most interesting item in Table 1 was the perception by everyone that the trainees could master the job and know how to do it. If there were problems, they related to inconsistency of effort and of not maintaining an acceptable level of production. Most fellow workers indicated that trainees would have to be taught each aspect if they changed jobs.

Conclusions

In summary, the A.M.E.S. project has demonstrated that moderately, and perhaps severely mentally disabled persons can learn to do jobs which currently exist in competitive industry. This represents an important upgrading of employment potential for many of these students. It is my judgment that structured interviewing of employees is one valid way of assessing the success of such programs. All indications were that these production workers responded openly, honestly and with interest to the questions asked. As a group, they exhibited excellent understanding of the strengths and weaknesses of each trainee and were very supportive of the program.

Table 1

Responses of Regular Production Employees Regarding Work Habits of Moderate/Severely Retarded Trainees

Structured Interview Item	Response		
	Yes	No	Don't Know
I. Conformity			
Arrives and leaves on time?	9	2	
Miss any days of work?		11	
Takes meals and breaks appropriately?	10	1	
Dress and appearance appropriate?	10	1	
II. Mastery of present job			
Knows how to do the job?	11		
Will do the job?	8	3	
Needs extra help now?	5	6	
III. Attitude			
Other workers approve?	8	3	
You approve?	8	3	
Trainee make it as a regular employee?	5	4	2

Chapter 7

Legal Reference Guide for School Vocational Training Programs for the Moderately and Severely Handicapped

by:
Steve Maurer, Consultant, Severely/Profoundly Handicapped, Instructional Services Section, Iowa Department of Public Instruction

Susan Teas, Work Experience Instructor, Heartland Area Education Agency 11

Programs for the Moderately and Severely Handicapped Legal Reference Guide for School Vocational Training

Legal Consideration	Contact Personnel		Publications & Documents
	State	Federal	
Child Labor Laws	Allen J. Meier, Director or Mike Burdette Labor Bureau 307 E. 7th & Court Des Moines, Iowa 50319 Phone: 515/281-3606	Paul Lynn, Area Director Child Labor Laws 638 Federal Building 210 Walnut Des Moines, Iowa 50309 Phone: 515/284-4625	Section 92 - Iowa Code - Labor Laws of Iowa Guide for Issuing Work Permits Child Labor Bulletin #101 Child Labor Requirements in Nonagricultural Occupations
Wage-Hour Laws	None (Iowa has no wage-hour law--compliance is with federal laws)	Paul Lynn Child Labor Laws 638 Federal Building 210 Walnut Des Moines, Iowa 50309 Phone: 515/284-4625 or JoAnn Ferrell, Wage & Hour Specialist U.S. Department of Labor Federal Wage & Hour Office 911 Walnut - Room 2000 Kansas City, Missouri 64106 Phone: 816/374-5382	Fair Labor Standards Act WH Publication 1297 WH Publication 1282 WH Publication 1316 WH Publication 1249 Form WH-222 Form WH-223 Part 524 (Regs.)
Unemployment Compensation (Co-op students exempt)	Pat Scott or Wayne Cromer Employer Liability & Field Audit 1000 E. Grand Des Moines, Iowa 50319 Phone: 515/281-8219 or 281-8216	Not Applicable	Iowa Labor Laws: Section 96.19-9-g-(6)
Worker's Compensation	Robert Landess Industrial Commissioner 507 - 10th Street Des Moines, Iowa 50319 Phone: 515/281-5934	Not Applicable	

Legal Consideration	Contact Personnel		Publications & Documents
	State	Federal	
Income Tax Filing & With-holding	Jerry Frantz Hoover Building 4th Floor Capitol Complex Des Moines, Iowa 50319 Phone: 515/281-3114	Taxpayer Service Internal Revenue Service Federal Building 210 Walnut Des Moines, Iowa 50309 Phone: 515/284-4850	Iowa - W4E Form Iowa W-4 - Employee's Withholding Allowance Certificate Circular E - Employers Tax Guide Publication 539 - Withholding Taxes and Reporting Requirements
Social Security Deductions & IPERS (Co-op students exempt)	Rosa Ervin, Supervisor IPERS-FOAB Returns Iowa Public Employees Retirement System 1000 East Grand Avenue Des Moines, Iowa 50319 Phone: 515/281-3435	Not Applicable	Handbook for Public Employers
Supplemental Security Income	Not Applicable	Nedra Doran Social Security Admin. 210 Walnut Des Moines, Iowa 50309 Phone: 515/284-4359	Supplemental Security Income: It can Help Mentally Retarded Citizens 1972 Amendments - SSI Child Benefits (A314-A322)
Employer Incentives	Merry Maitre, Consultant Career/Vocational Education for the Handicapped Department of Public Instruction Special Education Division Grimes State Office Bldg. Des Moines, Iowa 50319 Phone: 515/281-3176		Weighted Dollars
	Roger Foelske Career Education Div. Department of Public Instruction Grimes State Office Bldg. Des Moines, Iowa 50319 Phone: 515/281-4703	Louise Weislander Targeted Job Tax Credit Internal Revenue Service Federal Building 210 Walnut Des Moines, Iowa 50309 Phone: 515/284-4850	Targeted Job Tax Credit IRS Form 6199 IRS Publication 906

Legal Consideration	Contact Personnel		Publications & Documents
	State	Federal	
Employer Incentives (cont.)	JoAnn Callison, Assistant State Youth Coordinator Office for Planning and Programming 523 E. 12th Des Moines, Iowa 50319 Phone: 515/281-3927		CETA Youth Program Funds
	Paul Yochum, Field Coordinator National Association for Retarded Citizens 2700 Laura Lane Middleton, Wisconsin 53562 Phone: 608/831-1151		NARC-OJT Funds
	Raymond Morley, Consultant Special Needs Section Department of Public Instruction Grimes State Office Bldg. Des Moines, Iowa 50319 Phone: 515/281-3912		Community School Program Funds
Vocational Rehabilitation	Don Perkins, Resource Manager R.E.S.B. 510 E. 12th Street Des Moines, Iowa 50319 Phone: 515/281-4312		
Liability, School Insurance	Check with your school's legal counsel and the insurance company carrying liability insurance for your school. or Steve Maurer - Merry Maitre Iowa Department of Public Instruction Special Education Division Grimes State Office Building Des Moines, Iowa 50319 Phone: 515/281-3176		

Chapter 8

Vocational Education Survey of Intermediate and Secondary Public School Programs for Severely/Profoundly Handicapped Students

by:
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School of Business Administration,
Iowa State University

Chapter 8

Vocational Education Survey of Intermediate and Secondary Public School Programs for Moderately and Severely/Profoundly Handicapped Students

Introduction

The Vocational Education Survey was designed to assess the current "state of the art" in vocational programming for moderately mentally disabled and severely/profoundly handicapped adolescents and young adult students, ages 12-21.

The survey indicated that the data collected would be used by the Iowa Department of Public Instruction, Special Education Division to make statewide program development recommendations regarding the vocational training needs of these student populations.

Methodology

The survey (see Appendix D) was developed by the Division of Special Education. Before the survey was sent to teachers, phone calls were made to Area Education Agency mental disability supervisors and principals of our public/non-public and state hospital schools to 1) explain the purpose and content of the survey, 2) to solicit their support, and 3) ascertain the number of surveys to send to each area education agency. The supervisors and principals agreed to distribute the survey to the teachers. Following these phone calls, the cover letter and 250 surveys were sent to the 15 MD supervisors. These supervisors in turn distributed the survey to the principals who in turn distributed them to their teachers. Mental disability consultants collected the completed surveys and returned them to the supervisors who sent them to the Division of Special Education for tabulation.

Results

The results of the Vocational Education Survey are presented in a series of tables and listings of the responses. These results are intended to be used for discussion purposes as programs for the moderately and severely handicapped continue to strive toward improved service delivery.

Demographic Information

Table 1 provides a summary of responses tabulated for each item on the cover sheet of the Vocational Education Survey. Additional clarification of some of the items follows:

1. There were 107 classroom surveys returned, of which 69 (64.5% contained moderately mentally disabled students (MMD) and 38 (35.5%) contained severely/profoundly handicapped students (SPH). (Respondents, in many cases, did not answer every question on the surveys, so there is a discrepancy between the total number of surveys returned and the total number of respondents on each question).
2. The majority response for type of facility housing the classrooms was a segregated school building for both MMD (73.1%) and SPH (89.2%). Thus, the classroom located within a segregated school building best characterized the majority of classrooms surveyed (78.8%).
3. In response to the question of whether there was space for providing vocational training experiences, there were roughly 75 percent yes responses (MMD = 78.8% & SPH = 71.0%).
4. Approximately 77 percent of the students were moderately mentally disabled and 23 percent were severely/profoundly handicapped.
5. There were .76 educational aides per MMD classroom and 1.3 educational aides per SPH classroom.

Table 1

Vocational Education Survey

Type of classroom:
69 Moderately Mentally Disabled (MMD)
38 Severely/Profoundly Handicapped (SPH)

Type of Facility:	MMD	SPH	Total
Regular Elementary School Building	7	3	10
Regular Middle School Building	2	1	3
Regular Junior High School Building	2	0	2
Regular High School Building	4	0	4
Segregated School Building	49	33	82
Classroom Located In a Work Activity Center or Sheltered Workshop	3	0	3
State Institution	0	0	0
Does your school have space for you to provide vocational training experiences?			
Yes	52	27	79
No	14	11	25
Total Number of Students in Your Classroom:	665	196	861
Age Range of Your Students:	8-23	2-21	
Number of Your Students Between the Ages of 12-21:	644	178	822
Number of Educational Aides You Have: (per classrooms which have aides)	.76	1.13	

Vocational Assessment Procedures or Instruments Presently Using (Question 1):

	MMD	SPH	Total
No Vocational Assessment Procedures or Instruments Are Being Used	21	12	33
Prevocational Assessment and Curriculum Guide (PACG)	4	0	4
Talent Assessment Program (TAP)	3	0	3
Valpar Component Work Sample Series	2	1	3
Vocational Information and Evaluation Work Samples (VIEWS)	1	0	1
Community Job Skills Inventory	0	1	1
TOTALS	31	14	45

A majority of respondents (73.3%) indicate that presently there is no vocational assessment procedure or instrument in use.

Purposes of Present Vocational Assessment (Question 2):

A rank ordering of responses to question 2 follows:

Rank	Response	MMD	SPH	Total
1	Develop Vocational Training Experience	33	18	51
2	Counsel With Parents	30	7	37
3	Determine Work Placement Potential	28	6	34
4.5	Counsel With Students	20	3	23
4.5	Coordinate Services With Other Agencies	17	6	23
6	Other	13	5	18

The response receiving the highest frequency of checks was the use of a vocational assessment to develop vocational training experiences.

Instruments Used for the Purpose of Developing Individual Educational Plan (IEPs) (Question 3):

A rank ordering of responses to question 3 follows:

Rank	Response	MMD	SPH	Total
1	Camelot Behavior Checklist	26	5	31
2	AAMD Adaptive Behavior Scale	16	8	24
3	Project MEAD	15	5	20
4	The Brigance Inventory	15	1	16
5	TMR Performance Profile	8	6	14
6	Behavioral Characteristics Progression (BCP)	5	8	13
7	Assessment of Post-School Environments	6	3	9
8	Topeka Association for Retarded Citizens (TARC)	2	1	3
9	Community Job Skill Inventory	3	0	3
10	Cambridge Assessment: Developmental Rating and Evaluation (CADRE)	1	0	1

For MMD students, the Camelot Behavior Checklist was the instrument used most often for the purpose of developing I.E.P.'s. Two instruments were used most frequently for SPH students: AAMD Adaptive Behavior Scale and Behavioral Characteristics Progression (BCP).

Curriculum Areas Currently Working in and Percentage (%) of Time Students Are Engaged in These Areas During the School Week (Question 4):

The following summary lists the curriculum areas and provides information about the number of classrooms which checked a particular curriculum area. Additionaly, from those classrooms which also listed a percentage of time engaged in each curriculum area, the average percentage is calculated.

	MMD		SPH	
Curriculum Area	#[a]	% of Time	#[b]	% of Time
Academics	63	24.9	10	1.9
Pre-academics	28	2.9	17	5.0
Self-help	56	6.6	38	17.8
Socialization	58	7.9	34	9.3
Language/ Communication	53	7.0	37	14.2
Gross Motor	43	4.0	32	10.5
Fine Motor	45	4.1	32	8.1
Community Mobility/Func.	37	2.7	11	0.5
Planned Regular Contact With Nonhandicapped	21	2.6	4	0.0
Domestic Living Skills	55	8.7	25	5.8
Recreation/ Leisure Skills	56	8.0	30	8.8
Vocational Skills	56	21.5	27	15.6

[a] N = 69

[b] N = 38

From the tabulated data to the responses to question 4, a rank ordering comparison was made with the percentage of time engaged in each curriculum area between MMD and SPH classrooms.

Rank	MMD Classrooms	SPH Classrooms
1	Academics	Self-help
2	Vocational Skills	Vocational Skills
3	Domestic Living Skills	Language/ Communication
4	Recreation/ Leisure Skills	Gross Motor
5	Socialization	Socialization
6	Language/ Communication	Recreation/ Leisure
7	Self-help	Fine Motor
8	Fine Motor	Domestic Living
9	Gross Motor	Preacademics
10	Preacademics	Academics
11	Community Mobility	Community Mobility
12	Planned Contact with Nonhandicapped	Planned Contact with Nonhandicapped

Three statements follow regarding the rank ordering of curriculum areas:

- Academics occupies the largest block of curriculum time for MMD while Self-help skill development receives the most attention in SPH classrooms.
- Vocational skills is ranked #2 for both MMD and SPH classrooms.
- For both MMD and SPH classrooms, community mobility and planned contact with nonhandicapped receive the least emphasis in the allocation of time during the school week.

Volunteer Activities (Question 5)

In classrooms for the moderately mentally disabled, 236 students (35.49%) are involved in volunteer activities compared with 20 students (10.20%) in classrooms for severely/profoundly handicapped. Examples of volunteer activities center around disseminating newsletters. Components of this activity include:

addressing
bundling
collating
folding
sorting
stamping
stapling
stuffing

Newsletters from the following agencies are presently being distributed by classrooms for the moderately mentally disabled and severely/profoundly handicapped:

1. Area Education Agencies
2. Arthritis Foundation
3. Association for Retarded Citizens
4. Churches
5. Easter Seals
6. Farm Bureaus
7. 4 - H Chapters
8. Heart and Lung Societies
9. Kidney Foundation
10. Multiple Sclerosis Society
11. Muscular Dystrophy Society

Teachers in classrooms not presently utilizing volunteer activities as a means of providing vocational tasks for students give the following reasons:

Moderately Mentally Disabled

already done by other organizations
appears to be peonage
groups prefer more capable workers
lack of parent interest
never thought of it
no large agencies in the area
no time
no one had things for us to do
not appropriate for our students
not aware of organizations providing these activities
plan to start in fall of 1980
told it was illegal
work consisted of contracted work
would do more if agencies were interested

Severely/Profoundly Handicapped

activities not available
does not apply
higher functioning students do task
I have no knowledge of such activities
newly formed class
no coordinator
no time to make contacts
not appropriate at this time
parents want academics
physically handicapped
too low functioning
transportation

Simulated Work (Question 6):

In classrooms for the moderately mentally disabled, 416 students (62.59%) are involved in simulated work experiences compared with 114 students (58.16%) in classrooms for severely/profoundly handicapped. Examples of simulated work behaviors and corresponding activities include:

Assembling
    curlers
    drapery pulleys
    faucets
    pens
    rose boxes

- screws-nuts-bolts
- various small piece components

Counting
- soup labels
- use of counting jigs

Cutting
- soup labels

Folding
- paper in halves and fourths

Filing
- names in alphabetical order

Labeling
- jewelry boxes
- price tags on silk flowers

Packaging
- marbles
- one to five items in coin envelopes
- orders using color ties

Sorting
- Betty Crocker coupons
- bottle caps
- color, shape and size
- letters by zip code
- nuts and bolts

Stuffing
- envelopes

Woodworking
- paper log construction
- pounding in and removing nails
- power tools
- refinishing furniture
- sanding
- staining and varnishing

Miscellaneous
- button construction
- candle making
- ceramics and macrame
- compiling calender watch bands
- sewing, knitting, and latching

Teachers in classrooms not presently utilizing simulated work for providing vocational tasks for students give the following reasons:

Moderately Mentally Disabled

academics stressed
contracted work done
difficult to motivate students
doing volunteer work
materials not available
need inservice
no jobs available
no room
not done in classroom
only work on real jobs
planned for next year
real work available

Severely/Profoundly Handicapped

few students
not appropriate
students incapable
students need to learn other skills before simulated work
too low functioning

Community Trips (Question 7):

In classrooms for the moderately mentally disabled, 366 students (55.04%) are involved in community field trips to community work stations or job sites to look at work being performed and to interact with workers. In classrooms for the severely/profoundly handicapped, 25 students (12.76%) are involved in community trips. A listing of locations for community field trips include:

Auto body shop
Bakery
Bank
Botanical Center
Bowling Alley
Drug Store
Factory
Fire Station
Goodwill Industries
Greenhouse
Grocery Store
Hardware Store
Library
Main area of town
Parker Games
Public Transit
Restaurant
Service Station
Scheman Center
Sheltered Workshop
Telephone Office
University Laundry
Work Activities Center

Teachers in classrooms not presently utilizing community field trips in the vocational curricular domain give the following explanations:

Moderately Mentally Disabled

Community Related Reasons:
- availability of jobs limited
- inappropriate services
- lack of community support
- lack of realistic developed facilities
- rural area

School Related Reasons:
- class location does not warrant this
- lack of funds
- no administrative support
- no transportation

Student Related Reasons:
- inappropriate ages
- limited skills
- no students at age to desire this
- too low functioning
- when students get older they visit workshop

Teacher Related Reasons:

don't feel it is necessary to visit community
hadn't thought of it
long range goal
no emphasis in program at this point
not a strong area
not easy to fit into present schedule
not my area - done by workshop
spend more time in cooking and cleaning
would like to get out more

Severely/Profoundly Handicapped

Community Related Reasons:

no reasons cited

School Related Reasons:

can't take trips
limited by money
limited number of trips allowed by school
no coordinator
no community resources available

Student Related Reasons:

incapable of such trips
need to build up skills first
not appropriate
not ready
too low functioning
too severe
too young

Teacher Related Reasons:

long range goal
planning to take such trips
pleasure trips taken only

In School Jobs (Question 8):

In classrooms for the moderately mentally disabled, 331 students (49.77%) are involved in performing jobs in and around the school compared with 47 students (23.98%) in classrooms for severely/profoundly handicapped. Examples of in school jobs include:

Classroom Duties:

cleaning erasers, blackboards, and windows
emptying waste baskets
running film projector

Food Service:

busing tables
cleaning appliances, counters, mats, sinks, and tables
emptying garbage
helping younger children back to classroom after lunch
scraping trays
serving lunch and distributing milk
setting table (including moving in proper position for lunch)
washing dishes, pots, and pans (including use of the dishwasher)
wrapping silverware

Office Jobs:

addressing envelopes
helping school secretary
juice delivery
placing mail in teachers' mailboxes
photocopying

Outside Activities:

mowing, raking, and trimming lawns
raising flag
snow shoveling
trash pick-up
washing school cars and buses
watering trees
weeding

Miscellaneous:

cleaning bathroom, lounge areas
filling candy and soda machines
housekeeping aide: mopping, dusting, and washing laundry aid
moving school furniture
pre-school aid
vacuuming

Teachers in classrooms not presently involved in performing jobs in and around school give the following explanations:

Moderately Mentally Disabled

School Related Reasons:

employees not paid to train students
few jobs available
lack of funds
only jobs are in lunchroom
vocational unit does this

Student Related Reasons:

already been trained in these areas
beyond this level
limited skills
too young

Teacher Related Reasons:

in process of organizing this
lack of time and personnel
we should be more involved

Miscellaneous:

clients from Work Activities Center do these jobs

Severely/Profoundly Handicapped

School Related Reasons:

cooks refuse to allow students to cook in kitchen
jobs are too high

older advanced students get jobs
vocational unit does this

Student Related Reasons:

functioning level and age
not appropriate
not yet indicated work readiness

Teacher Related Reasons:

not able to be involved
not responsible
scheduling and supervision

Miscellaneous:

clients from Work Activities Center do these jobs

Work Activities Center (Question 9):

In classrooms for the moderately mentally disabled, 41 students (6.17%) spend a part of their instructional day or week in a work activity center compared with 13 students (6.63%) in classrooms for the severely/profoundly handicapped. Examples of work activity jobs include:

Academic Skills
Assembling: bolts, chair togs, faucet, glides, valves
Ceramics making
Collating and stapling
Home Living Skills: cooking, grooming
Janitorial skills of mopping and cleaning
Job Assessment including simulated work stations and work training
Packaging hairnets and curlers
Paper Shredding
Physical Education Training
Recycling Cans
Sorting: nuts on a rod, screws, cans
Spreading steel cylinder fibers of broom and brush
Stacking seed sacks
Subcontract Work
Woodworking: sanding, stacking boards at workshop

Teachers in classrooms not presently having students participate in a work activity center program present the following explanations:

Moderately Mentally Disabled

School Related Reasons:

lack of funds
no working agreement
not close enough to community
transportation

Student Related Reasons:

jobs not suited for students
no one at that ability level
none need services
older students have top priority
too young

Teacher Related Reasons:

lack of interest
lack of time for supervision
need inservice
not sure
we do in classroom

Work Activity Center Related Reasons:

none available
offers no additional services
overcrowded workshop

Miscellaneous:

against social services rules
negative reaction from parents
no vocational rehabilitation person to place or monitor students
not part of program
vocational unit does this

Severely/Profoundly Handicapped

School Related Reasons:

no reasons cited

Student Related Reasons:

don't have skills
eligible after graduation
inappropriate
not applicable
not capable - too low functioning
too young

Teacher Related Reasons:

no reasons cited

Work Activity Center Related Reasons:

no center available
overcrowded

Miscellaneous:

no community resources available
prevocational work done in classroom

Sheltered Workshop (Question 10):

In classrooms for the moderately mentally disabled, 48 students (7.22%) spend a part of their instructional day or week in a sheltered workshop. Teachers in classrooms for the severely/profoundly handicapped indicated that none of their students presently spend any portion of the day or week in a sheltered workshop. Examples of sheltered workshop jobs include:

Assembling: desk legs
Bow making
Counting, stapling and stuffing items for envelopes
Custodial
Industrial

Packaging: dog food, various small items
Simulated and Actual work
Sorting: cans, boxes
Stringing tags
Typing
Woodworking: furniture repair, log making, pallate building
Work Assessment

Teachers in classrooms not presently having students participate in a sheltered workshop program present the following explanations:

Moderately Mentally Disabled

School Related Reasons:

distance to closest workshop
no space
transportation

Student Related Reasons:

don't need this training
no one at that ability level
not appropriate for any of students
present program more comprehensive
two students are borderline for workshop

Teacher Related Reasons:

better to start students at W.A.C. first
can do a better job than workshop
no time

Sheltered Workshop Related Reasons:

no perdiem rate for part time workers
no sheltered workshop in community
not available to our students
only take students who have graduated

Miscellaneous:

against social services rules
no vocational rehabilitation person to place or monitor students
not part of prevocational program
students are evaluated by vocational rehabilitation person and placed in W.A.C.
vocational unit does this

Severely/Profoundly Handicapped

School Related Reasons:

no reasons cited

Student Related Reasons:

age and functioning level
don't qualify for services
eligible after graduation

Teacher Related Reasons:

no reasons cited

Sheltered Workshop Related Reasons:

none available
W.A.C. is connected to sheltered workshop

Miscellaneous:

no community resources available
prevocational work done in classroom

Non-Sheltered Employment (Question 11):

In classrooms for the moderately mentally disabled, 36 students (5.41%) spend a part of their day or week in non-sheltered community employment. Teachers in classrooms for the severely/profoundly handicapped indicated that none of their students presently spend any portion of the day or week in non-sheltered community employment. Examples of non-sheltered community jobs include:

Chambermaid
Food Service: foodpress (hospital), waitress washing dishes (restaurant)
Greenhouse Assistant
Housekeeping: bedmaking, sorting and folding laundry (University laundry and V.A. Hospital)
Janitorial: assistant, mopping floors (nursing home), cleaning buses (M.T.A.)
Mechanic Assistant
Paper Route
Preschool and Daycare Aide
Sewage Station Attendant

Teachers in classrooms not presently having students participate in non sheltered community employment present the following explanations:

Moderately Mentally Disabled

School Related Reasons:

no work coordinator to set up program
vocational unit does it

Student Related Reasons:

aren't ready
inability to hold jobs
limited skills
none needing services
not capable
physical condition

Teacher Related Reasons:

have not found jobs suited for students
lack of interest
lack of time for supervision
no release time
not part of program
possibilities have not been explored

Miscellaneous:

community ignorance and apathy
lack of interest by sheltered workshop
negative reaction from parents

no community employment
placement is done by W.E.I.
students are trained at workshop after graduation then go into employment

Severely/Profoundly Handicapped

School Related Reasons:

no reasons cited

Student Related Reasons:

age and functioning level
inappropriate
not capable

Teacher Related Reasons:

prevocational work done in classroom

School Related Reasons:

no reasons cited

Miscellaneous:

difficulty to find employers who will employ severely/profoundly handicapped
no community employment

Summary of Questions five through eleven:

Figure 1 presents the results from questions five through eleven of the Vocational Education Survey. A comparison is made between classrooms for moderately mentally disabled and severely/profoundly handicapped. In classrooms for the moderately mentally disabled, the frequency of responses to each question is divided by the total number of students in those classrooms (N = 665). In a similar manner, the frequency of responses to each question from classrooms for severely/profoundly handicapped is divided by the total number of students in those classrooms (N = 196). Thus a percentage score is calculated and shown in figure 1 (see page 126).

Assistance Received in Providing Vocational Instruction (Question 12):

Subcontract	MMD	SPH	TOTAL
AEA Mental Disability Consultant	30	9	39
AEA Work Experience Instructor	21	3	24
Vocational Rehabilitation Counselor	17	4	21
AEA Occupational Therapist	9	7	16
Local Vocational Educators at High School	0	1	1
Special Needs Coordinator from local Community College	0	0	0

The AEA Mental Disability Consultant was checked most often in both the MMD and SPH categories as the person providing assistance in vocational instruction.

Sources of Funds Used to Provide Vocational Training Experiences (Question 13):

Data tabulated from this question revealed a general lack of immediate knowledge to answer questions accurately and thus no summary of these responses is listed.

Number of Students Completing School Program and What Post-School Placements Occurred (Question 14):

Placement	MMD	SPH	Total
Work Activity Center	39	17	56
Sheltered Workshop	40	1	41
Competitive Employment	33	0	33
Activity Center	15	13	28
Unemployed	21	3	24
I Don't Know	24	4	28
TOTALS	172	38	210

Respondents listed 210 graduates of their school program. The Work Activity Center was the most likely post-school environment for 56 (26.7%) of the graduates while 24 (11.4%) remained unemployed after graduation.

Services Currently Available (Question 15):

Rank	Service	MMD	SPH	TOTAL
1	Curriculum Materials on Vocational Programming	40	22	62
2	Financial Assistance to Purchase Equipment and Supplies	26	15	41
3.5	Inservice Training on How to Establish Work-Training Stations and Job Sites	15	11	26
3.5	Individual Consultative Services on How to Develop Vocational Curriculum Strategies	19	7	26
5	Inservice Training on How to Assess Student Abilities in the Vocational Area	12	8	20
6	Financial Assistance to Transport Students Within or Outside Your Community	14	2	16
7.5	Additional Personnel to Assist in Implementing Vocational Training Programs in School	11	3	14
7.5	Additional Personnel to Assist in Implementing Vocational Training Programs In the Community	13	1	14

Two of the services listed above, Curriculum Materials on Vocational Programming, and Financial Assistance to Purchase Equipment and Supplies, rank 1 and 2 respectively in both classrooms for moderately mentally disabled and severely/profoundly handicapped.

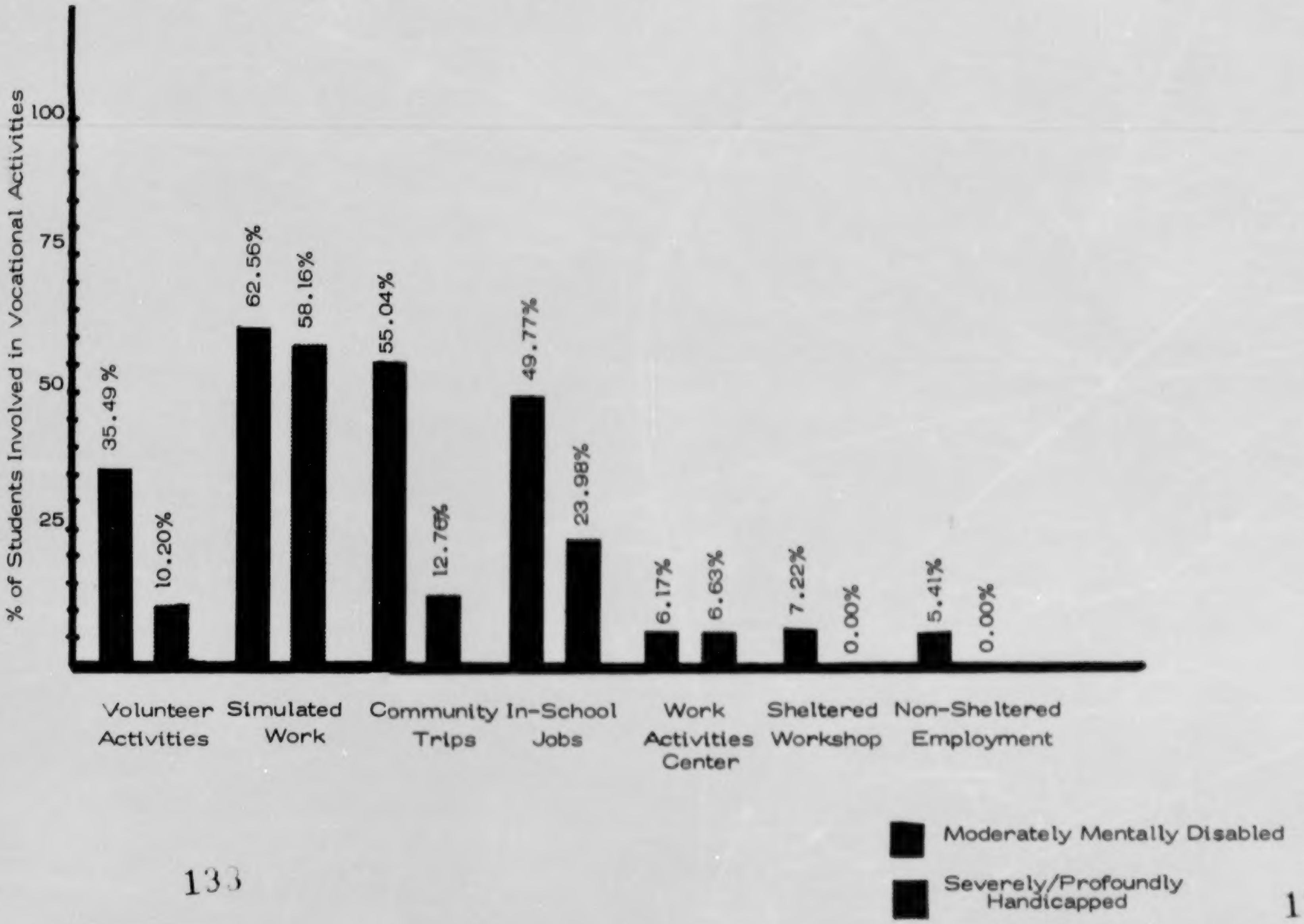
Services One Would Like To Receive (Question 16):

Rank	Combined MMD and SPH Response
1	Curriculum Materials on Vocational Programming
2	Inservice Training on How To Establish Work Training Stations and Job Sites
3	Additional Personnel to Assist in Implementing Vocational Training Programs in the Community
4	Financial Assistance to Purchase Equipment and Supplies
5.5	Inservice Training on How to Assess Student Abilities in the Vocational Areas
5.5	Individual Consultative Services on How to Develop Vocational Curriculum Strategies
7	Additional Personnel to Assist in Implementing Vocational Training Programs in School
8	Financial Assistance to Transport Students Within or Outside Your Community

When responding to services currently available and services one would like to receive, the item that received a rank of 1 in both instances was Curriculum Materials on Vocational Programming.

Figure 1

Percentage of Students in Iowa Involved in Vocational Activities by Severity of Handicap



Recommendations

In conclusion, the following recommendations are offered:

1. Schools not having appropriate space to accommodate vocational training activities should be reviewed to document the situation. Practical plans should be established to provide space via working with the administration(s). Criteria should be established to practically guide LEA's in determining space allocation.

2. The use of vocational assessment in public school programs serving the moderately and severely handicapped population is practically non-existent and/or poorly conceived by responsible teachers and administrators. Inservice training stressing the implementation and use of vocational assessment should occur on a statewide basis and involve all teachers as is possible and practical.

3. University training programs should be reviewed to ascertain the training emphasis in vocational assessment. Modifications should be planned and coordinated.

4. Individual education plans and curriculum developed in LEA's must be reviewed to ascertain the degree to which teachers emphasize vocational instruction. In addition, the approaches being used must be examined to determine teacher's understanding of what vocational instruction can be. Inservice training on this subject should occur concurrently to spur development and answer the present needs of teachers.

5. Community mobility and planned contact with nonhandicapped persons is a genuine need of moderately and severely handicapped persons. The importance of these needs must be examined carefully to account for their contribution to successful vocational adjustment.

6. Simulated and volunteer work as part of a curriculum for moderately and severely handicapped pupils is being practiced by less than 50 percent of the teachers in the field. The consequences of the lack of implementation via comparisons of like persons is not clear. The understanding that teachers have of how to implement simulated and volunteer work is questionable. Inservice and further assessment of teacher understanding and implementation practices is needed to spur more activity and accurately identify specific needs for continued inservices.

7. At least 44 percent of the schools with training programs serving moderately and severely handicapped persons do not engage in community field trips. The degree of involvement of schools engaging in the practice (40 percent) is not known. Techniques to overcome barriers to community involvement have been requested. Specific efforts need to be generated that address the problems of rural schools in implementing community-based field visits.

8. The capability of the moderately and severely handicapped is being prejudged by teachers which may or may not be accurate. Since we really do not know the potential of many of the moderately and severely handicapped until they have tried, prejudgements are in question. Inservice on the topic of judging the vocational potential of persons should occur in conjunction with inservice on vocational assessment. In addition, further exploration of vocational adaptations for the multiply handicapped needs to take place.

Chapter 9

Iowa Sheltered Employment Survey: An Assessment of Skill Entry Requirements

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Chapter 9

Iowa Sheltered Employment Survey

This Iowa Sheltered Employment Survey (see Appendix E) was designed to assist school personnel in identifying those behaviors and skills that supervisors in sheltered workshops and work activity centers consider important for entry and placement in their facilities. The survey indicated that the data collected would be used by the Iowa Department of Public Instruction to make state-wide program development recommendations regarding the vocational training needs of school-age (0-21) moderate mentally disabled and severely/profoundly handicapped students.

Method

The survey was a replication of one conducted to identify sheltered workshop entry requirements in the Northwest (Mithaug, Hagmeier, and Haring, 1977; Mithaug and Hagmeier, 1978) and in Kansas (Johnson and Mithaug, 1978). It was endorsed by the Iowa Association of Rehabilitation Facilities (IARF) and the Rehabilitation and Education Services Branch of the Iowa Department of Public Instruction before being implemented.

The survey was sent out by the Department of Public Instruction to the membership of the IARF (63 sheltered workshops and work activity centers). The directions indicated that the survey should be completed by persons who are familar with all aspects of the facility. Specifically, one who was knowledgeable about entrance requirements and required levels of production or performance. Two weeks after the original request, IARF contacted each of their members requesting they respond to the survey. Thirty- four agencies responded by sending the completed survey back to the Department of Public Instruction, Special Education Division.

Basic Information

The first two pages of the questionnaire were structured to obtain information from the workshop regarding populations served, populations not served, and relationships with public school programs. The sheltered workshops that responded to the questionnaire serve individuals with a variety of handicapping conditions.

Of particular interest are those populations that workshops frequently refuse to serve. For example, 56 percent of the workshops responded that they did not serve the profoundly retarded, and 24 percent checked that they did not serve the severely retarded. In addition, there were several comments offered regarding the difficulty of serving those with serious emotional disorders.

Approximately half of the workshops had working agreements with the public schools. Those that did not have such a relationship indicated that they had several services that would be of benefit to public school students. These services included vocational evaluation, work adjustment training, and social/leisure skills instruction.

Important Skills

Using the Sheltered Employment Survey, respondents were asked to designate behaviors deemed important for entry into sheltered employment. Table 1 provides a rank ordering of behavior categories with the proportion of respondents designating any behaviors within a category as important. This table includes rank ordering for all category listings in which 75 percent or more of the respondents replied that the behavior was important for entry into sheltered employment. For example, category #37-learn to work at new job tasks when supervisor explains by physically prompting, modeling, or verbally describing how the task is to be done-was designated as important by 97 percent of the respondents, and received a rank of 1.

Table 1
Iowa Sheltered Employment Survey

Rank and proportion of respondents that selected a category as
important for entry into sheltered employment
for state of Iowa (N = 34)

Rank	#	Proportion	Category Listing
1	37	.97	Learn to work at new job tasks when supervisor explains by physically prompting, modeling (doing the task in front of client), or verbally describing how the task is to be done.
3	4	.94	Be able to communicate such basic needs as thirst, hunger, sickness, pain, toileting necessities, or others.
3	5	.94	Be able to communicate basic needs by verbal expression, finger spelling, signs, or gestures.
3	27	.94	Follow 1-2 word instructions, 3-5 word instructions, 6-8 word instructions, or more than 8 word instructions.
5	19	.91	Be able to reach place of work by means of public transportation, company-sponsored vehicle, or own arrangement.
6.5	14	.88	Maintain proper grooming by dressing appropriately for work, dressing appropriately after using restroom, cleaning self before coming to work, cleaning self after using restroom, cleaning self after eating lunch, eating food appropriately at lunch, displaying proper table manners at lunch, or others.
6.5	38a	.88	Learn new job tasks that involve one step on 0-15 minutes of instruction, 16-30 minutes of instruction, 1-6 hours of instruction, 7-12 hours of instruction, or more than 12 hours of instruction.
11	17	.85	Be able to take care of toileting needs independently with no accidents, 1-2 accidents per month, 3-4 accidents per month, or 5-10 accidents per month or semi-independently with aide taking him/her regularly to the restroom with no accidents, 1-2 accidents per month, 3-4 accidents per month, or 5-10 accidents per month.
11	25	.85	Respond appropriately to safety signals when given verbally, through signs, or from signals (buzzers, bells, etc.)
11	41a	.85	Be able to complete repetitive tasks previously learned to proficiency involving one step with less than one error for every 20 products, one error for every 10 products, 2-3 errors for every 10 products, 4-5 errors for every 10 products, or 5 or more errors for every 10 products.
11	44	.85	Be able to participate in work environment for periods of one hour, two hours, three hours, four hours, five hours, or six hours.
11	45	.85	Work at job station continuously for 0-15 minutes, 16-30 minutes, 31-60 minutes, 1-2 hours, or more than 2 hours.
11	57b	.85	Does not display or engage in major disruptive behaviors (e.g., tantrums) more frequently than 0 times per week, 1-2 times per week, 3-5 times per week, 6-8 times per week, 9-15 times per week, or 15 or more times per week.
11	58	.85	Work at job station with 0 work disruptions (client stops working) per day, 1-2 work disruptions per day, 3-5 work disruptions per day, 6-8 work disruptions per day, 9-15 work disruptions per day, or more than 15 work disruptions per day.

Rank	#	Proportion	Category Listing
19	20	.82	Be absent from work no more than an average of zero days per week, an average of once per week, an average of twice per week, an average of three times per week, or an average of four times per week.
19	26	.82	Move safely about shop by walking from place to place, identifying and avoiding dangerous areas, or wearing appropriately safe work clothes.
19	29	.82	Respond appropriately and immediately after receiving each instruction, one out of every two instructions, one out of every five instructions, or one out of every 10 instructions.
19	39	.82	Correct work on task after first correction from supervisor, second correction from supervisor, third-fifth correction from supervisor, sixth-tenth correction from supervisor, or more than 10 corrections from supervisor.
19	42a	.82	Be able to complete repetitive tasks previously learned to proficiency involving one step at 0-10% of normal rate, 11-20% of normal rate, 21-30% of normal rate, 31-50% of normal rate, or higher than 50% of normal rate.
19	46	.82	Not leave job station inappropriately during work period more than 0 times per day, 1-2 times per day, 3-5 times per day, 6-8 times per day, 9-15 times per day, or 16 or more times per day.
19	49a	.82	Work alone continuously without disruptions for a 15-minute period with no contacts from supervisor, 1-2 contacts from supervisor, 3-5 contacts from supervisor, 6-8 contacts from supervisor, 9-15 contacts from supervisor, or more than 15 contacts from supervisor.
19	53	.82	Initiate contact with supervisor when he/she cannot do job, runs out of materials to do job, finishes job, feels too sick or tired to continue working, needs a drink of water or to go to restroom, or makes a mistake on the job.
19	57a	.82	Does not display or engage in minor disruptive behaviors (e.g., interruptions) more frequently than 0 times per week, 1-2 times per week, 3-5 times per week, 6-8 times per week, 9-15 times per week, or 15 or more times per week.
26	40a	.79	Match or sort items on one variable (e.g., only color, only size, or only shape) at 0-10% of normal rate, 11-20% of normal rate, 21-30% of normal rate, 31-50 of normal rate, or faster than 50% of normal rate.
26	41b	.79	Be able to complete repetitive tasks previously learned to proficiency involving two steps with less than one error for every 20 products, one error for every 10 products, 2-3 errors for every 10 products, 4-5 errors for every 10 products, or 5 or more errors for every 10 products.
26	42b	.79	Be able to complete repetitive tasks previously learned to proficiency involving two steps at 0-10% of normal rate, 11-20% of normal rate, 21-30% of normal rate, 31-50% of normal rate, or higher than 50% of normal rate.
26	48	.79	Work independently alone at table without discontinuing work more frequently than 0 times per day, 1-2 times per day, 3-5 times per day, 6-8 times per day, 9-15 times per day, or more than 15 times per day.
26	55a	.79	Not initiate contact inappropriately with co-workers more frequently than 0 times per day, 1-2 times per day, 3-5 times per day, 6-8 times per day, 9-15 times per day, or 16 or more times per day.
35.5	21	.76	Appear at job station on time and without prompting in the morning when work begins, after each coffee break, or after lunch.
35.5	28	.76	Follow instructions with words such as in, on; to your right, to your left, under, over, through; or press, hold, twist.
35.5	31	.76	Respond to an instruction requiring immediate compliance within 0-30 seconds, 31-60 seconds, 61-90 seconds, 91-120 seconds, or more than 120 seconds.

Rank	#	Proportion	Category Listing
35.5	35	.76	Have fine motor coordination to assemble large (2" x ½") nuts and bolts at 0-10% of normal rate, 11-20% of normal rate, 21-30% of normal rate, 31-50% of normal rate, or faster than 50% of normal rate.
35.5	38b	.76	Learn new job tasks that involve two steps in 0-15 minutes of instruction, 16-30 minutes of instruction, 1-6 hours of instruction, 7-12 hours of instruction, or more than 12 hours of instruction.
35.5	38c	.76	Learn new job tasks that involve 5-10 steps in 0-15 minutes of instruction, 16-30 minutes of instruction, 1-6 hours of instruction, 7-12 hours of instruction, or more than 12 hours of instruction.
35.5	38d	.76	Learn new job tasks that involve three to five steps in 0-15 minutes of instruction, 16-30 minutes of instruction, 1-6 hours of instruction, 7-12 hours of instruction, or more than 12 hours of instruction.
35.5	40b	.76	Match and sort items on two variables (e.g., color and size) at 0-10% of normal rate, 11-20% of normal rate, 21-30% of normal rate, 31-50% of normal rate, or faster than 50% of normal rate.
35.5	41c	.76	Be able to complete repetitive tasks previously learned to proficiency involving three or more steps with less than 1 error for every 20 products, 1 error for every 10 products, 2-3 errors for every 10 products, 4-5 errors for every 10 products, or more than 5 errors for every 10 products.
35.5	49d	.76	Work alone continuously without disruptions for a two-hour period with no contacts from supervisor, 1-2 contacts from supervisor, 3-5 contacts from supervisor, 6-8 contacts from supervisor, 9-15 contacts from supervisor, or more than 16 contacts from supervisor.
35.5	55b	.76	Not initiate contact inappropriately with supervisor more frequently than 0 times per day, 1-2 times per day, 3-5 times per day, 6-8 times per day, 9-15 times per day, or 16 or more times per day.
35.5	55c	.76	Work alone continuously without disruptions for a two-hour period with stranger in shop more frequently than 0 times per day, 1-2 times per day, 3-5 times per day, 6-8 times per day, 9-15 times per day, or 16 or more times per day.
35.5	59	.76	Respond appropriately to social contacts initiated by others on at least every occasion, 1 out of every 2 occasions, 1 out of every 5 occasions, 1 out of every 10 occasions, or 1 out of every 15 occasions.

Essential Behaviors

After placing check marks next to those subcategories deemed important for entry into sheltered employment, respondents were instructed to circle those behaviors which were deemed essential for entry into sheltered employment. Table 2 presents the rank ordering of these essential skills. For example, subcategory # 4e Be able to communicate toileting necessities was checked as essential by 50 percent of all respondents and received a rank of 1. The top 33 subcategories are listed in Table 2.

Table 2

Iowa Sheltered Employment Survey (Subcategory Lists)

Listing of Iowa (n = 34) subcategory ranks and proportion
of respondents that selected a subcategory as essential
for entry into sheltered employment

Rank	#	Proportion	Subcategory
1	4e	.50	Be able to communicate toileting necessities.
2	4d	.44	Be able to communicate pain.
3	4c	.44	Be able to communicate sickness.
4	5d	.41	Be able to communicate needs by gestures.
5.5	14a	.38	Maintain proper grooming by dressing appropriately for work.
5.5	25c	.38	Respond appropriately to safety signals (buzzers, bells, etc.).
7	1a	.38	Recite verbally upon request: full name.
8	14d	.35	Maintain proper grooming by: cleaning self after using restroom.
9	53a	.35	Initiate contact with supervisor when he/she cannot do the job.
10	25a	.32	Respond appropriately to safety signals when given verbally.
11	57b-2	.32	Does not display or engage in major disruptive behaviors (e.g., tantrums) more frequently than 1-2 times per week.
12.5	23a	.29	Be able to communicate thirst.
12.5	24a	.29	Understand work routine by not displaying disruptive behaviors when routine task or program changes occur.
14.5	27a	.29	Follow 1-2 word instructions.
14.5	53b	.29	Initiate contact with supervisor when he/she runs out of materials to do job.
16	25b	.29	Respond appropriately to safety signals when given through signs.
17	14b	.26	Maintain appropriate grooming by dressing appropriately after using restroom.
18.5	4b	.26	Be able to communicate hunger need.
18.5	6b	.26	Count items with aid of a jig.
20.5	37a	.26	Learn to work at new job tasks when supervisor explains by physically prompting.
20.5	53d	.26	Initiate contact with supervisor when he/she feels too sick or tired to continue working.

Rank	#	Proportion	Subcategory
22.5	19b	.26	Be able to reach place of work by means of company-sponsored vehicle.
22.5	53f	.26	Initiate contact with supervisor when he/she makes a mistake on the job.
24	53c	.26	Initiates contact with supervisor when he/she finishes job.
25	17a-1	.26	Be able to take care of toileting needs independently with no accidents.
26	14c	.24	Maintain proper grooming by cleaning self before coming to work.
27.5	26a	.24	Move safely about shop by walking from place to place.
27.5	41a-1	.24	Be able to complete repetitive tasks previously learned to proficiency involving one step with less than one error for every 20 products.
29	13a	.24	Understand the purpose of money by wanting to work for money.
30	20b	.24	Be absent from work no more than an average of once per week.
31	49a-1	.24	Work alone continuously without disruptions for a 15-minute period with no contacts from supervisor.
32	48c	.24	Work independently alone at table without discontinuing work more frequently than 3-5 times per day.
33	46c	.24	Not leave job station inappropriately during work period more than 3-5 times per day.

Discussion

Data obtained from the Sheltered Employment Survey provides useful information for programming with secondary level handicapped students. By asking supervisors and directors of sheltered employment environments what behaviors are needed for entry into this post school work setting, teachers obtain validation for designating priority content areas in the vocational curricular domain. In this vocational domain, validation refers to the process of securing documentation from significant people in a handicapped individual's post-school work environment for identifying the skills which are important to successfully function within that work environment. One such post-school work setting is a sheltered employment enviroment. Thus, in order to best prepare students to function successfully in a sheltered employment environment, the secondary teachers need information regarding those skills which are required for success. From this information, teachers can establish priorities for vocational and related skill instruction.

Table 2 provides the most detailed listing from the survey. In this table the top 33 essential subcategory behaviors are rank ordered from most essential to least essential. The ability to communicate toileting, pain, & sickness rank one, two, & three respectively. This information alerts the secondary teacher to the importance of these behaviors as perceived by significant persons in their students' potential post-school work environment. Knowing the importance of this behavior, the classroom teacher can assess whether this ability to communicate basic needs is presently in the student's skill repertoire. If the skill is lacking, a high priority can be assigned when developing that student's Individualized Educational Program.

The Sheltered Workshop Survey has provided special educators in Iowa with a data base from which they can make program decisions related to the preparation of students for sheltered employment. However, for comprehensive program planning, similar assessments are needed for non-sheltered employment settings, community residential alternatives, and other areas of community functioning. From such an analysis, the relevance of public school education will be enhanced, and the ultimate ability of moderately and severely handicapped students to participate fully in community life will be maximized.

Appendix A

Simulated Jobs

1. Stuff envelopes with two different colored 3x5 index cards.
   Norm: 8 per minute.
   a. Pick up envelope
   b. Open envelope
   c. Pick up one card and insert in envelope
   d. Pick up second card and insert in envelope
   e. Put envelope in basket

2. Stuff 6½x9½ brown envelopes with three IBM cards.
   Norm: 5.8 per minute.
   a. Count out 3 IBM cards
   b. Pick up brown envelope
   c. Insert the 3 cards
   d. Tap down or push in cards
   e. Fold flap down
   f. Put envelope in basket

3. Remove two different colored index cards from envelopes.
   Norm: 11.4 per minute.
   a. Pick up envelope
   b. Take index cards out of envelope
   c. Put envelope in basket
   d. Put one colored card in bin
   e. Put the other colored card in bin

4. Paper clip three IBM cards and put them in 4½x9½ brown envelopes.
   Norm 5.2 per minute.
   a. Pick up and count 3 IBM cards
   b. Pick up paper clip
   c. Paper clip 3 IBM cards together
   d. Pick up envelope
   e. Insert 3 cards
   f. Place envelope in basket

5. Make bows.
   Norm: .7 per minute.
   a. Pick up pattern
   b. Place bow tack in pattern
   c. Pick up ribbon
   d. Put ribbon through bow tack and continue around pattern
   e. Take bow off pattern
   f. Put bow in basket

6. Fluff bows.
   Norm: 1.2 per minute.
   a. Pick up bow
   b. Pull out ribbon to fluff bow
   c. Put bow in basket

7. Bag bows.
   Norm: .7 per minute.
   a. Pick up bag
   b. Place different colored bows in bag (8 bows in all)
   c. Pick up label
   d. Place label in bag
   e. Use stapler and staple bags shut
   f. Place bags in pile

8. Assemble three IBM cards with paper clip.
   Norm: 5.6 per minute.
   a. Count 3 IBM cards
   b. Match cut corners
   c. Pick up paper clip
   d. Place clip on clipped corner
   e. Place cards in basket with paper clip on right corner

9. Count IBM cards - clip together with paper clip.
   Norm: 5 per minute.
   a. Pick up IBM cards and match corners
   b. Count out 3 cards
   c. Pick up paper clip
   d. Clip 3 cards together
   e. Place cards on 1 of 5 cues
   f. Repeat process 5 times
   g. Pick up all 5 piles
   h. Put in basket
   i. Put token in container and repeat

10. Bag two different colored water testers in Hach bags.
    Norm: 5.6 per minute.
    a. Pick up bag
    b. Pick up one colored tester
    c. Put in bag
    d. Pick up the other colored tester
    e. Put in bag
    f. Get one small piece of scotch tape
    g. Place tape on bag
    h. Place bag in basket

11. Bottle colored beads (red, yellow, green, and blue).
    Norm: 5 per minute.
    a. Pick up bottle
    b. Remove cap from bottle
    c. Pick up 1st colored bead
    d. Put bead in bottle
    e. Pick up 2nd colored bead
    f. Put bead in bottle
    g. Pick up 3rd colored bead
    h. Put bead in bottle

   i. Pick up 4th bead
   j. Put in bottle
   k. Replace lid on bottle

12. Bag pop lids.
    Norm: 1.1 per minute.

   a. Pick up one lid put in egg carton
   b. Repeat using 12 lids filling all 12 spaces in carton
   c. Pick up baggie
   d. Open baggie
   e. Place each of the 12 lids (one at a time) in baggie
   f. Place bag in basket

13. Put ten kernels of corn into Hach testing tubes and cap.
    Norm: 2.3 per minute.

   a. Pick up tube
   b. Pick up one kernel of corn and put in tube
   c. Repeat process ten times
   d. Pick up black lid
   e. Place lid on container
   f. Place container in bins

14. Bag one colored disk in each bag.
    Norm: 10.8 per minute.

   a. Pick up bag
   b. Pick up disk
   c. Place disk inside bag
   d. Put bag in basket

15. Bag one test tube in Hach bag.
    Norm: 13.8 per minute.

   a. Pick up bag
   b. Pick up test tube
   c. Place test tube in bag
   d. Put bag in basket

16. Bottle two objects and screw on lids.
    Norm: 6.3 per minute.

   a. Pick up bottle
   b. Put one object in bottle
   c. Put second object in bottle
   d. Pick up lid
   e. Screw lid on bottle
   f. Place bottle in box

17. Put five kernels of corn into Hach testing tubes and cap.
    Norm: 2.8 per minute.

   a. Pick up tube
   b. Pick up one kernel of corn and place on circle drawn on paper
   c. Repeat (b) five times
   d. Pick up black lid
   e. Place lid on tube
   f. Place tube in basket

18. Bottle five objects and screw cap on bottle.
    Norm: 4.1 per minute.

   a. Pick up bottle
   b. Pick up object
   c. Put object in bottle
   d. Repeat (c) five times
   e. Pick up lid
   f. Screw lid on bottle
   g. Put bottle in box

19. Put four kernels of corn in Hach testing tube and cap.
    Norm: 2.8 per minute

   a. Pick up tube
   b. Put a kernel of corn on drawn circle
   c. Repeat (b) 4 times
   d. Put corn in tube
   e. Repeat (d) 4 times
   f. Pick up lid
   g. Place lid on tube
   h. Put tube in basket

20. Assemble large nuts and bolts.
    Norm: 3.6 per minute.

   a. Pick up bolt
   b. Pick up nut
   c. Screw nut all the way to the bottom of bolt
   d. Place in basket

21. Assemble small nuts and bolts.
    Norm: 8.3 per minute.

   a. Pick up bolt
   b. Pick up nut
   c. Screw nut just so it stays on
   d. Put belt in circle on peg board (left to right)

22. Sort nails according to size and shape.
    Norm: 36.7 per minute.

   a. Pick up nail
   b. Put in bin
   c. Repeat process

23. Tear, fold, and staple IBM paper.
    Norm: 2.6 per minute.

   a. Pick up one sheet of IBM paper
   b. Tear on perforated line
   c. Fold with printing inside
   d. Line up holes
   e. Staple in right hand corner by the holes
   f. Lay in basket

24. Place rubber lids on water testers.
    Norm: 6.3 per minute.

   a. Pick up water tester
   b. Pick up lid
   c. Place lid on tester
   d. Put in basket

25. Sort and rack colored disks.
Norm: 16.3 per minute

   a. Pick up rack from shelves
   b. Pick up one pile of disks (all same color)
   c. Place one disk on each circle (circles are drawn on a laminated paper)
   d. Pick up one disk from each circle and place on nail on board
   e. Repeat until rack is completed
   f. Take completed rack to shelf

26. Assemble napkins and silverware.
Norm: 5.1 per minute.

   a. Pick up napkin
   b. Pick up fork
   c. Place on napkin
   d. Pick up spoon
   e. Put on napkin
   f. Roll silverware in napkin
   g. Place on a tray

Appendix B

Employer's Manual

What is Project A.M.E.S.?

Project A.M.E.S. is the community referenced, functional curriculum for the moderately and severely/profoundly mentally handicapped students at Willson-Beardshear School in Ames, Iowa. The purpose of Project A.M.E.S. is to provide students with skills and experiences necessary to function as independently and as productively as possible at home, at work, and in the community.

How is it funded?

Project A.M.E.S. is funded and supported through the joint planning and cooperation of the Ames Community School District, the Iowa Department of Public Instruction, and the Heartland Area Education Agency.

What does it do?

Project A.M.E.S. is designed to develop training and placement procedures which enable moderately and severely/profoundly mentally handicapped students to be placed within a continuum from activity center to full-time community employment, and to develop transition strategies from school services to community-based services.

Through the cooperation of present and future employers, supervisors, and co-workers, vocational training for students at Willson-Beardshear School is exciting and successful!

Is vocational training done in school?

Vocational training within the functional curriculum begins in the primary grades. The AWARENESS phase of the vocational program includes an emphasis on work skills such as manipulation, sorting, matching, completing the job, and attending to task. Students, ages six through ten, work for at least thirty minutes daily within the school workshop on specific work jobs. These students also explore the community at least one day a week while emphasis is placed on appropriate work objectives.

Vocational training continues into the intermediate levels with more time devoted daily to the work job. In the ACCOMMODATION phase of Project A.M.E.S., students work at least sixty minutes daily, five days a week, every day of the school year. Work objectives include completing the job with productive rates equal to competitive norms. The intermediate students, ages eleven through fifteen, work daily in the workshop at school, and explore community settings at least one day a week.

Why must students work in the community?

The entire vocational training model is based on the premise that moderately and severely/profoundly mentally handicapped workers cannot automatically transfer learning from a school setting into a business. Therefore, as young as possible and as often as possible, training must take place in the community.

How are students trained in the community?

The EXPLORATION phase of Project A.M.E.S. is designed to provide business exposure and to teach job tasks in a variety of settings to students ages fifteen to twenty-one. As often as possible--at least two days a week for three hours per day--students go to a business establishment, receive assigned jobs from the business supervisor, and with school supervision, complete the job with acceptable quality. The objectives of this phase of the program are to work cooperatively with business employees, complete the assigned task with quality and as close to competitive standards as possible, and follow the rules and regulations of the business.

What is on-the-job training?

Beyond the age of seventeen, workers need extensive training on a specific job. At this phase of Project A.M.E.S., ON-THE-JOB TRAINING sites become the classrooms for workers ages eighteen through twenty-one. Each training site is designed with specific production and social goals for a particular student. Within the training program, the classroom teacher teaches the job initially and writes the training program in cooperation with other staff members. After the job has been learned, training supervision is assumed by the Project's training aide, the business advocate, and the floor supervisor at the training site. Because it is important to duplicate a natural working environment, supervision from the business itself is extremely important. It is important that the worker learn to report to the business and not to the school in terms of job performance and attitudes. Project A.M.E.S. staff provide all the needed teaching and keep daily records of the worker's performance.

What is the advocate?

The role of advocate is determined by the needs of each student. An advocate is a co-worker who has offered to be a friend, to answer questions, to provide social contacts during coffee and lunch breaks, and to relate job information on a one-to-one basis with the student. The advocate has proven to be one of the most influential persons for the worker. The advocate teaches through being an example of a good employee.

Are students ready to graduate into the working world?

The final year of school for the student at Willson-Beardshear School is called the TRANSITION year. This is the time plans are made early in the school year for the student's transition from one school program into the community. Vocational preparation begins with a business firm for potential training evolving into a job placement at the end of the school year. Training on the job and supervision is provided by Project A.M.E.S. staff at a point where supervision is gradually withdrawn. The goal is for the worker to be as productive and independent as possible in order for that worker to prove his/her worth as an employee.

Do the student workers earn wages?

Students working in the vocational training program are not employees of the business firm within the meaning of the Fair Labor Standards Act, and therefore, are not entitled to wages if the following criteria apply:

1. The training is similar to that which would be given in a vocational school.
2. The training is for the benefit of the student.
3. The student does not displace regular employees but works under their close supervision.
4. The employer derives no immediate advantage from the activities of the student, and on occasion his operations may actually be impeded.
5. The student is not necessarily entitled to a job at the conclusion of the training period.
6. The employer and the student understand that the student is not entitled to wages for the time spent in training.

How do students earn wages?

If a student aged sixteen or over has worked on a subcontract in which goods produced are sold for profit by the company, the worker receives wages equivalent to his/her productivity on that subcontract.

Who pays the student?

Project A.M.E.S. is certified as a Work Activities Center. All students ages sixteen and over are employees of the school. Money earned by the student is paid to Project A.M.E.S. and in turn is paid to the worker as wages earned. The school is exempt from withholding taxes, social security, FICA, IPERS, and is exempt from unemployment insurance.

Do worker's compensation laws apply?

Worker's compensation laws are liberally interpreted in favor of the working person, and are in effect whether or not the worker is receiving wages. If a student is in the training program at a business firm, the firm would more than likely be liable for worker's compensation.

What kind of work can the students do?

Job skills taught and developed in the training program include:

1. Collating, sorting, stuffing, folding, stapling, tearing, cleaning, polishing, and labeling.
2. Completing three to twenty step assemblies and disassemblies.
3. Using power tools such as a drill press and a table saw.
4. Using hand tools such as pliers, wrenches, vises, hammers, screwdrivers, and cutters.
5. Measuring lengths such as five inches and ten feet.
6. Working with machinery such as molders and testers.
7. Operating air driven equipment.
8. Applying glue and paint.
9. Sorting similar and dissimilar materials.
10. Boxing and labeling completed materials.
11. Sanding.
12. Removing stamps with steel wool.
13. Reading dials.
14. Making quality judgments.

Who do I contact for more information?

Project A.M.E.S.
Willson-Beardshear School
912 Carroll
Ames, Iowa 50010
(515) 233-1433

Appendix C

Parent/Guardian Inventory

I. General Student Information

A. Student's Name ______________________________
(*first*) (*middle*) (*last*)

Student's Social Security Number ______________ Birthdate ______________

Current Address ______________________ Phone Number ______________

B. Parent's Name ______________________ Phone Number ______________

Parent's Address ______________________ Business Phone No. __________
(if different from student's)

C. House Parent's/Foster Parent's Name ______________________________

Phone Number ______________

D. Social Worker's Name ______________________ Phone Number ______________

E. Physician's Name ______________________________

Physician's Address ______________________ Phone Number ______________

Medications and time of administering ______________________________

____

____

F. Teacher's Name ______________________________

G. What type(s) of communication system(s) does your son/daughter/charge use?

______ verbal ______ gestures

______ sign language ______ other, please specify

______ picture book ______________________

______ written message ______________________

H. Upon graduation from Willson-Beardshear School, you would like to see your son/daughter/charge participating in (a):

______ Day Care/Activity Program

______ Sheltered Workshop

______ Competitive Part-time Employment

______ Competitive Full-time Employment

______ Other, please specify ______________________

____

I. Following graduation from Willson-Beardshear School, you anticipate your son's/daughter's/charge's living situation to be:

________ Urban (what city?) ________

________ Rural (what county?) ________

________ At Home (whose home?) ________

________ Group Home (which one?) ________

________ Sheltered Apartment (what city?) ________

________ State Institution (which one?) ________

________ Other (please specify) ________

J. Would you be able/be willing to drive your son/daughter/charge to his/her place of employment?

________ If yes, would you drive up to 20 miles one way, if needed, on a daily basis? Comments regarding transportation to and from work:

____

____

II. Domestic Domain

A. What domestic activities does your son/daughter/charge presently participate in at home, and how independent is he/she in these activities? (dependent, needs maximal supervision; semi-dependent, needs continual assistance; semi-independent, needs minimal supervision; independent, needs no supervision)

Activity	**Degree of Independence**
Makes own bed (for example)	Independent - needs no help at all
________	________
________	________
________	________
________	________

B. What domestic areas do you feel your son/daughter/charge needs instruction in?

________ dressing appropriately/choosing clothes

________ clothing care

________ meal preparation

________ housekeeping

________ hygiene/grooming

________ health (general well-being, simple first aid, sex education, etc.)

________ others, please specify ________

____

____

____

III. Community Mobility Domain

A. What community activities do your son/daughter/charge presently participate in, and how independent is he/she in these activities? (dependent, semi-dependent, semi-independent or independent)

Activity	Degree of Independence
Shops for groceries (for example)	Semi-independent - shops for only one or two items

B. What activities do you expect your son/daughter/charge to be able to participate in?

_________ Use public transportation

_________ Shop for groceries

_________ Use a shopping center/mall

_________ Use community/downtown stores for shopping

_________ Cross street

_________ Use restaurant

_________ Use public service agencies (post office, bank, job service, etc.)

_________ Use public recreation facilities (go bowling, swimming, etc.)

_________ Visit health services (doctor, dentist, barber, etc.)

_________ Other, please specify ______________________________

____

IV. Vocational Domain

A. What work demands are being placed on your son/daughter/charge at home, and what is his/her reaction to them?

Work Demand	Reaction
Carries out the trash (for example)	Does willingly - needs not be told

B. What jobs does your son/daughter/charge seem particularly interested in or really like to do (in or out of the home)?

C. What jobs, if any, seem adverse to him/her?

D. What types of work or occupations (if any) do you object to your son/daughter/charge participating in?

E. If there are any recurring safety problems (fascination with electrical outlets, putting object in mouth, etc.) please state them.

V. Recreation/Leisure Domain

A. What leisure activities does your son/daughter/charge participate in at home and how independent is he/she in these activities? (dependent, semi-dependent, semi-independent, independent)

Activity	**Degree of Independence**
Plays cards with sister (for example)	Semi-independent - cannot deal or shuffle

B. What community leisure activities does your son/daughter/charge participate in and how independent is he/she in these activities? (dependent, semi-dependent, semi-independent, independent)

Activity	**Degree of Independence**
Bowls once a week (for example)	Semi-dependent - needs to have shoes and ball chosen for him

C. In what leisure activities would you like to see your son/daughter/charge participating?

__________ Going to movies

__________ Attending family outings

__________ Going to spectator sports

__________ Participating in sports - individual or group (specify sport(s))

____

__________ Using the library

__________ Attending concerts, plays

__________ Attending carnivals, craft shows, mall shows

__________ Participating in organized recreation such as dances and bingo (please specify)

____

__________ Attending day camp/summer camp

__________ Attending YARC meetings

__________ Participating in Church activities

__________ Swimming

__________ Joining private clubs/organizations (health clubs, ski clubs, country clubs, tennis/raquetball clubs) Please describe

____

____

__________ Eating out

__________ Taking a drive

__________ Hiking

__________ Biking

__________ Shopping

__________ Becoming active in Big Brother/Sister activities

__________ Joining craft/hobby classes (please specify ____________________)

VI. Additional Information

A. If you have any concerns or comments regarding your son's/daughter's/charge's education within each domain, please state them.

Domestic Domain ____

____

____

Community Mobility Domain ____

____

____

Vocational Domain ____

____

____

Recreation/Leisure Domain ____

____

____

B. Please sign and date this survey. It will go in your son's/daughter's/charge's record and will be vital for the development of his/her I.E.P.

.... (signed)

.... (dated)

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General student information such as the names, addresses, and phone numbers of all individuals in direct contact with the student and his or her program is requested, as is information regarding the student's activities the parents would like to see their son or daughter participating in, and the living arrangements they would like for their child. Also, to know how involved parents are able to be regarding transportation and mobility is important for immediate and future plans.

In each of the four domains, information is requested regarding what the individual is able to do, how well he or she can do it, and what the parents would like to see their son or daughter be able to do. Once the inventory is completed by parents, it should be included in planning the student's individual education plan. This inventory should be reviewed and updated on a yearly basis.

References

Mithaug, D.E., Hagmeier, L.D., and Haring, N.G. "The Relationship Between Training Activities and Job Placement in Vocational Education of the Severely and Profoundly Handicapped," *AAESPH Review*, 1977, Volume 2, pp. 89-109.

Mithaug, D.E., and Hagmeier, L.D. "The Development of Procedures to Assess Prevocational Competencies of Severely Handicapped Young Adults," *AAESPH Review*, 1978, Volume 3, pp. 94-115.

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Appendix D

Vocational Education Survey

Demographic Data

AEA: ______________________ Name of School: ______________________

School Location: ______________________
(city or town)

Please check (✓) one:

Type of classroom:

_____ Moderately Mentally Disabled

_____ Severely/Profoundly Handicapped

Type of Facility You Are In:

_____ Regular Elementary School Building

_____ Regular Middle School Building

_____ Regular Junior High School Building

_____ Regular High School Building

_____ Segregated School Building

_____ Classroom Located In a Work Activity Center or Sheltered Workshop

_____ State Institution

_____ Other, Please Specify: ______________________

Does your school have space for you to provide vocational training experiences?

_____ yes _____ no

Total Number of Students In Your Classroom: ______________________

Age Range of Your Students: ______________________

Number of Your Students Between the Age of 12-21: ______________________

Number of Educational Aides You Have: ______________________

Length of School Day: ______________________

DIRECTIONS: Please complete only for those students, ages 12-21. If more space is needed to fully answer some items, please use additional sheets of paper.

1. Please check (✓) which vocational assessment procedures or instruments you use: (check all that apply)

_____ McCarron-Dial Work Evaluation System
_____ Vocational Information and Evaluation Work Samples (VIEWS)
_____ Valpar Component Work Sample Series
_____ The Tower System
_____ Singer Vocational Evaluation System
_____ Philadelphia Jewish Employment and Vocational Service Work Sample System (JEVS)
_____ The Hester System
_____ Talent Assessment Program (TAP)
_____ Wide Range Employment Sample Test (WREST)
_____ The Prevocational Assessment and Curriculum Guide (PACG)

______ Community Job Skills Inventory
______ No vocational assessment procedures or instruments are being used
______ Other, Please Specify: ______

If no vocational assessment procedures or instruments are being used, please cite reasons why they are not being used:

2. Please check (√) if a vocational assessment is used to: (check all that apply)

______ Counsel With Parents
______ Counsel With Students
______ Determine Work Placement Potential
______ Develop Vocational Training Experiences
______ Coordinate Services With Other Agencies
______ Other, Please Specify: ______

3. Please check (√) which instruments you use to collect data for the purpose of developing individual educational plans: (check all that apply)

______ AAMD Adaptive Behavior Scales
______ Balthazar Scales of Adaptive Behavior
______ Behavioral Characteristics Progression (BCP)
______ Camelot Behavior Checklist
______ Cambridge Assessment: Developmental Rating and Evaluation (CADRE)
______ Pennsylvania Training Model
______ Topeka Association for Retarded Citizens (TARC)
______ TMR Performance Profile
______ Project MEAD
______ The Brigance Inventory
______ Community Job Skills Inventory
______ Assessment of Post-School Environments (Residential, Vocational, Community)
______ Other, Please Specify: ______

4. Please check (√) which curriculum areas you are currently working in and estimate the percentage (%) of time your students are engaged in these areas during the school week: (check all that apply)

	Time
______ Academics (Reading, Writing, etc.)	______
______ Preacademics/Readiness	______
______ Self-Help	______
______ Socialization	______
______ Language/Communication	______
______ Gross Motor	______
______ Fine Motor	______
______ Community Mobility/Functioning	______
______ Planned Regular Contact With Nonhandicapped Individuals (other than school staff)	______
______ Domestic Living Skills	______
______ Recreation/Leisure Skills	______
______ Vocational Skills	______
______ Other, Please Specify: ______	______
______	______

5. Please indicate the number of students in your classroom involved in volunteer activities (civic contributions on a voluntary basis such as stuffing brochures for United Way): __________

   a. How many hours a week does the average (or typical) student spend on volunteer activities? ______
   b. Please describe the volunteer activities and the organization(s) activities are done for:

   ____
   ____
   ____
   ____

   c. If you are not involved in volunteer activities, please cite reasons why there is no involvement.

   ____
   ____
   ____

6. Please indicate the number of students in your classroom involved in simulated work (made up jobs using real materials): ____

   a. How many hours a week does the average (or typical) student spend in simulated work? __________
   b. Please describe the simulated work tasks:

   ____
   ____
   ____
   ____

   c. If you are not involved in simulated work, please cite reasons why there is no involvement.

   ____
   ____
   ____

7. Please indicate the number of students in your classroom involved in community field trips to community work stations or job sites to look at work being performed and to interact with workers: __________

   a. How many hours a week does the average (or typical) student spend in community field trips? ______
   b. Please describe these community field trips and indicate where you go:

   ____
   ____
   ____
   ____

   c. If you are not involved in community field trips, please cite reasons why there is no involvement.

   ____
   ____
   ____
   ____

8. Please indicate the number of students in your classroom involved in performing jobs in and around the school (assisting custodian, food service, etc.): __________

   a. How many hours a week does the average (or typical) student spend in performing jobs in and around the school? __________
   b. Please describe these in-school jobs:

   ____
   ____
   ____
   ____
   ____
   ____
   ____

c. Are students paid for in-school work training experiences? _____ yes _____ no
If yes, indicate the source of funds.

d. If you are not involved in in-school jobs, please cite reasons why there is no involvement.

9. Please indicate the number of students in your classroom who spend a part of their instructional day or week in a work activity center: _____

a. How many hours a week does the average (or typical) student spend in the work activity center? _____
b. Please describe the activities which students are involved in at the work activity center.

c. If you are not involved with a work activity center, please cite reasons why there is no involvement.

10. Please indicate the number of students in your classroom who spend a part of their day or week in a sheltered workshop: _____

a. How many hours a week does the average (or typical) student spend in the sheltered workshop? _____
b. Please describe the activities which students are involved in at the sheltered workshop.

c. If you are not involved with a sheltered workshop, please cite reasons why there is no involvement.

11. Please indicate the number of students in your classroom who spend a part of their day or week in non-sheltered community employment: _____

a. How many hours a week does the average (or typical) student spend in non-sheltered, community employment? _____

b. Please describe the jobs in which students are engaged.

c. If you are not involved in non-sheltered community employment, please cite reasons why there is no involvement.

____

____

12. Please check (✓) if you receive assistance in providing vocational instruction from a(n): (check all that apply)

______ AEA Mental Disability Consultant
______ AEA Occupational Therapist
______ AEA Work Experience Instructor
______ Special Needs Coordinator From Your Local Area Community College
______ Vocational Rehabilitation Counselor
______ Local Vocational Educators at High School
______ Other, Please Specify: ______________________________

13. Please check (✓) which sources of funds you or your school are using to provide vocational training experiences: (check all that apply)

______ State Special Education weighted dollars
______ Special Needs Community School Program (CSP) dollars
______ National Association for Retarded Citizens (NARC) on-the-job training dollars
______ Comprehensive Education Training Act (CETA) dollars
______ Other, Please Specify: ______________________________
______ I don't know!

14. Please indicate the number of students who have completed your program within the past three (3) years. ______ Please indicate the number of these students who fall within the following post-school placement options:

a. Number in competitive employment in community: ______________________________
b. Number in sheltered workshop: ______________________________
c. Number in work activity center: ______________________________
d. Number in activity center: ______________________________
e. Number unemployed: ______________________________
f. I don't know! ______________________________

15. Please check (✓) those services currently available to you: (check all that apply)

______ Curriculum materials on vocational programming
______ Financial assistance to purchase equipment and supplies
______ Inservice training on how to establish work training stations and job sites
______ Inservice training on how to assess student abilities in the vocational area
______ Individual consultative services on how to develop vocational curriculum strategies
______ Additional personnel to assist in implementing vocational training programs in school
______ Additional personnel to assist in implementing vocational training programs in the community
______ Financial assistance to transport students within or outside your community
______ Other, Please Specify: ______________________________

16. Please indicate those services you would like to receive by ranking (1 = top priority) them in order of importance to you:

______ Curriculum materials on vocational programming
______ Financial assistance to purchase equipment and supplies
______ Inservice training on how to establish work training stations and job sites
______ Inservice training on how to assess student abilities in the vocational area
______ Individual consultative services on how to develop vocational curriculum strategies
______ Additional personnel to assist in implementing vocational training programs in school
______ Additional personnel to assist in implementing vocational training programs in the community
______ Financial assistance to transport students within or outside your community
______ Other, Please Specify: ______________________________

Appendix E

Iowa Sheltered Employment Survey

1. Name of agency: ______________________________

2. Address: ______________________________
____

3. Phone: ______ ______________________
4. Name of person(s) responsible for completing survey: ______________________

5. Type of facility (Please check (✓) one):
   ______ Sheltered workshop
   ______ Work activity center
   ______ Combination of above two
   ______ Other, please specify: ______________________________

6. Please check (✓) which handicapped populations you serve (check all which apply):
   ______ Trainable mentally retarded
   ______ Severely mentally retarded
   ______ Profoundly mentally retarded
   ______ Physically handicapped
   ______ Multiply handicapped, please specify handicaps: ______________________
   ____
   ______ Other, please specify: ______________________________
   ____

7. Please check (✓) which handicapped populations your facility cannot serve (check all which apply):
   ______ Trainable mentally retarded
   ______ Severely mentally retarded
   ______ Profoundly mentally retarded
   ______ Physically handicapped
   ______ Multiply handicapped, please specify handicaps: ______________________
   ____
   ______ Other, please specify: ______________________________
   ____

8. Please indicate the age range of the clients you are currently serving: ______________

9. Please indicate average length of client work day at your facility: ______________________
   ____

10. Are you currently serving school age (0-21) students via a written contract with a local school district or an Area Education Agency (AEA)? Yes ______ No ______
    a. If yes, how many students are you serving?
    b. If no, would you be interested in serving school-aged students if a school district or AEA wanted to contract with you to provide vocational experiences for their students? Yes ______ No ______.

11. Please list those services you feel you can offer to local school districts and/or AEA's.
    ____
    ____
    ____
    ____
    ____

Vocational Education Survey

Directions:

Each item on the survey is preceded by the question, "For entry into sheltered employment is it **Important** that a client should . . .?" Check each item you believe is important. You may check more than one item in each category.

"IMPORTANT SKILLS" DEFINED--Particular skills or performance levels are highly desired for a person to be employed and maintain employment in your setting. These skills would contribute toward one's success, but are not absolutely essential for employment. A skill is important if without it potential difficulties could arise and possibly threaten the person's continued employment and/or placement.

Example

For entry into sheltered employment is it important that a client should:

Please check (✓) if important.

1. Recite verbally upon request:
   __✓__ a. Full name
   _____ b. Home Address
   _____ c. Telephone number
   _____ d. Age

……

FOR ENTRY INTO SHELTERED EMPLOYMENT IS IT IMPORTANT THAT A CLIENT SHOULD:

Please check (✓) if important.

1. Recite verbally upon request:

   _____ a. Full name
   _____ b. Home address
   _____ c. Telephone number
   _____ d. Age
   _____ e. Name of employer
   _____ f. Address of employer

2. Read and/or write:

   _____ a. 1-2 word sentences
   _____ b. 3-5 word sentences
   _____ c. 6-8 word sentences
   _____ d. 9-15 word sentences
   _____ e. 15 or more word sentences

3. Initiate and/or respond verbally in:

   _____ a. 1-2 word sentences
   _____ b. 3-5 word sentences
   _____ c. 6-8 word sentences
   _____ d. 9-15 word sentences
   _____ e. 15 or more word sentences

FOR ENTRY INTO SHELTERED EMPLOYMENT IS IT IMPORTANT THAT A CLIENT SHOULD:

Please check (✓) if important

4. Be able to communicate such basic needs as:
   - ______ a. Thirst
   - ______ b. Hunger
   - ______ c. Sickness
   - ______ d. Pain
   - ______ e. Toileting necessities
   - ______ f. Other, please specify: ____________

5. Be able to communicate basic needs by:
   - ______ a. Verbal expression
   - ______ b. Finger spelling
   - ______ c. Signs
   - ______ d. Gestures

6. Count items:
   - ______ a. Independently (without aides)
   - ______ b. With aide of a jig

7. Have basic arithmetic skills to:
   - ______ a. Add
   - ______ b. Subtract
   - ______ c. Multiply
   - ______ d. Divide

8. Read and follow community signs: __________ (stop, go, bus, etc.)

9. Tell and follow time:
   - ______ a. On the hour
   - ______ b. On the half hour
   - ______ c. On the quarter hour
   - ______ d. On the five minutes
   - ______ e. On the minute

10. Dial the telephone and speak to:
    - ______ a. Relatives at home
    - ______ b. Employer
    - ______ c. Police department
    - ______ d. Fire department
    - ______ e. Ambulance
    - ______ f. Operator
    - ______ g. Other, please specify: ____________

11. Use the telephone book to look up names and numbers ______

12. Answer the telephone appropriately:
    - ______ a. For self
    - ______ b. For others (to take messages)

13. Understand the purpose of money:
    - ______ a. To want to work for money
    - ______ b. To use money to purchase items
    - ______ c. To make change
    - ______ d. To operate vending machines

14. Maintain proper grooming by:
    - ______ a. Dressing appropriately for work
    - ______ b. Dressing appropriately after using restroom
    - ______ c. Cleaning self before coming to work
    - ______ d. Cleaning self after using restroom
    - ______ e. Cleaning self after eating lunch
    - ______ f. Eating food appropriately at lunch
    - ______ g. Displaying proper table manners at lunch
    - ______ h. Other, please specify: ____________

15. Maintain personal hygiene by:
    - ______ a. Shaving regularly
    - ______ b. Keeping teeth clean
    - ______ c. Keeping hair combed
    - ______ d. Keeping nails clean
    - ______ e. Using deodorant
    - ______ f. Other, please specify: ____________

16. Be able to eat lunch:
    - a. Independently with no assistance in:
      - ______ (1) Getting lunch sack or container
      - ______ (2) Getting food out of container
      - ______ (3) Eating food in appropriate order (sandwich before dessert)
      - ______ (4) Pouring liquid into cup or glass
      - ______ (5) Putting food remainder back in container when finished
      - ______ (6) Putting lunch container away
    - b. Semi-independently with some assistance in:
      - ______ (1) Getting lunch sack or container
      - ______ (2) Getting food out of container
      - ______ (3) Eating food in appropriate order (sandwich before desert)
      - ______ (4) Pouring liquid into cup or glass
      - ______ (5) Putting food remainder back in container when finished
      - ______ (6) Putting lunch container away

17. Be able to take care of toileting needs:
    - a. Independently with:
      - ______ (1) No accidents
      - ______ (2) 1-2 accidents per month
      - ______ (3) 3-4 accidents per month
      - ______ (4) 5-10 accidents per month
    - b. Semi-independently with aide taking him/her regularly to the restroom with:
      - ______ (1) No accidents
      - ______ (2) 1-2 accidents per month
      - ______ (3) 3-4 accidents per month
      - ______ (4) 5-10 accidents per month

18. Be able to ride the public transit to and from work: ______

FOR ENTRY INTO SHELTERED EMPLOYMENT IS IT IMPORTANT THAT A CLIENT SHOULD:

Please check (✓) if important.

19. Be able to reach place of work by means of:

______ a. Public transportation
______ b. Company-sponsored vehicle
______ c. Own arrangement

20. Be absent from work no more than:

______ a. An average of zero days per week
______ b. An average of once per week
______ c. An average of twice per week
______ d. An average of three times per week
______ e. An average of four times per week

21. Appear at job station on time and without prompting:

______ a. In the morning when work begins
______ b. After each coffee break
______ c. After lunch

22. Discontinue work at job station at appropriate time without:

a. Prompting from supervisor

______ (1) For scheduled coffee breaks
______ (2) For scheduled lunch periods
______ (3) At end of work day

b. Prompting from fellow workers

______ (1) For scheduled coffee breaks
______ (2) For scheduled lunch periods
______ (3) At end of work day

23. Understand work routine by:

______ a. Not displaying disruptive behaviors when routine task or program changes occur
______ b. Anticipating routine task or program changes by assisting in the change of materials
______ c. Initiating task or program changes by replacing appropriate materials at scheduled change periods.

24. Be able to keep his/her work station neat by:

______ a. Picking up materials dropped on floor in area
______ b. Arranging work materials that become disorganized while working
______ c. Putting work materials away after finishing task
______ d. Keeping completed products separate from other work materials

25. Respond appropriately to safety signals when given:

______ a. Verbally
______ b. Through signs
______ c. From signals (buzzers, bells, etc.)

26. Move safely about shop by:

______ a. Walking from place to place
______ b. Identifying and avoiding dangerous areas
______ c. Wearing appropriately safe work clothes

27. Follow:

______ a. 1-2 word instructions
______ b. 3-5 word instructions
______ c. 6-8 word instructions
______ d. More than 8 word instructions

28. Follow instructions with words such as:

______ a. In, on
______ b. To your right, to your left
______ c. Under, over, through
______ d. Press, hold, twist

29. Respond appropriately and immediately after receiving:

______ a. Each instruction
______ b. 1 out of every 2 instructions
______ c. 1 out of every 5 instructions
______ d. 1 out of every 10 instructions

30. Remember to respond to an instruction that requires compliance after a specified time interval with:

a. No reminders for periods of:

______ (1) 1-5 minutes
______ (2) 6-10 minutes
______ (3) 11-20 minutes
______ (4) 21-30 minutes
______ (5) More than 30 minutes

b. One reminder for periods of:

______ (1) 1-5 minutes
______ (2) 6-10 minutes
______ (3) 11-20 minutes
______ (4) 21-30 minutes
______ (5) More than 30 minutes

FOR ENTRY INTO SHELTERED EMPLOYMENT IS IT IMPORTANT THAT A CLIENT SHOULD:

Please check (✓) if important.

c. Two or more reminders for periods of:

______ (1) 1-5 minutes
______ (2) 6-10 minutes
______ (3) 11-20 minutes
______ (4) 21-30 minutes
______ (5) More than 30 minutes

31. Respond to an instruction requiring immediate compliance within:

______ a. 0-30 seconds
______ b. 31-60 seconds
______ c. 61-90 seconds
______ d. 91-120 seconds
______ e. More than 120 seconds

32. Speak clearly enough to be understood by anyone on the:

______ a. First transmission
______ b. Second transmission
______ c. Third transmission
______ d. Fourth transmission
______ e. Fifth or more transmissions

33. Speak at the rate of:

______ a. 1-10 words per minute
______ b. 11-25 words per minute
______ c. Faster than 25 words per minute

34. Have gross motor coordination to walk:

______ a. To and from job station
______ b. To and from bus stop
______ c. To and from home

35. Have fine motor coordination to assemble large (2" x ½") nuts and bolts at:

______ a. 0-10% of normal rate
______ b. 11-20% of normal rate
______ c. 21-30% of normal rate
______ d. 31-50% of normal rate
______ e. Faster than 50% of normal rate

36. Be able to use small hand tools and office devices appropriately such as:

______ a. Screwdriver
______ b. Hammer
______ c. Saw
______ d. Hand drill
______ e. Pliers
______ f. Stapler
______ g. Tape dispenser
______ h. Scissors
______ i. Paper cutter
______ j. Other, please specify: ______

37. Learn to work at new job tasks when supervisor explains by:

______ a. Physically prompting
______ b. Modeling (doing the task in front of client)
______ c. Verbally describing how the task is to be done

38. Learn new job tasks that:

a. Involve 1 step in:

______ (1) 0-15 minutes of instruction
______ (2) 16-30 minutes of instruction
______ (3) 1-6 hours of instruction
______ (4) 7-12 hours of instruction
______ (5) More than 12 hours of instruction

b. Involve 2 steps in:

______ (1) 0-15 minutes of instruction
______ (2) 16-30 minutes of instruction
______ (3) 1-6 hours of instruction
______ (4) 7-12 hours of instruction
______ (5) More than 12 hours of instruction

c. Involve 3 to 5 steps in:

______ (1) 0-15 minutes of instruction
______ (2) 16-30 minutes of instruction
______ (3) 1-6 hours of instruction
______ (4) 7-12 hours of instruction
______ (5) More than 12 hours of instruction

d. Involve 5-10 steps in:

______ (1) 0-15 minutes of instruction
______ (2) 16-30 minutes of instruction
______ (3) 1-6 hours of instruction
______ (4) 7-12 hours of instruction
______ (5) More than 12 hours of instruction

39. Correct work on task after:

______ a. First correction from supervisor
______ b. Second correction from supervisor
______ c. Third-fifth correction from supervisor
______ d. Sixth-tenth correction from supervisor
______ e. More than ten corrections from supervisor

FOR ENTRY INTO SHELTERED EMPLOYMENT IS IT IMPORTANT THAT A CLIENT SHOULD:

Please check (✓) if important.

40. Match and sort items:

a. On 1 variable (e.g., only color, only size, or only shape) at:

_____ (1) 0-10% of normal rate
_____ (2) 11-20% of normal rate
_____ (3) 21-30% of normal rate
_____ (4) 31-50% of normal rate
_____ (5) Faster than 50% of normal rate

b. On 2 variables (e.g., color and size) at:

_____ (1) 0-10% of normal rate
_____ (2) 11-20% of normal rate
_____ (3) 21-30% of normal rate
_____ (4) 31-50% of normal rate
_____ (5) Faster than 50% of normal rate

c. On 3 variables (e.g., color, size, and shape) at:

_____ (1) 0-10% of normal rate
_____ (2) 11-20% of normal rate
_____ (3) 21-30% of normal rate
_____ (4) 31-50% of normal rate
_____ (5) Faster than 50% of normal rate

41. Be able to complete repetitive tasks previously learned to proficiency:

a. Involving 1 step with less than:

_____ (1) 1 error for every 20 products
_____ (2) 1 error for every 10 products
_____ (3) 2-3 errors for every 10 products
_____ (4) 4-5 errors for every 10 products
_____ (5) 5 or more errors for every 10 products

b. Involving 2 steps with less than:

_____ (1) 1 error for every 20 products
_____ (2) 1 error for every 10 products
_____ (3) 2-3 errors for every 10 products
_____ (4) 4-5 errors for every 10 products
_____ (5) 5 or more errors for every 10 products

c. Involving 3 or more steps with less than:

_____ (1) 1 error for every 20 products
_____ (2) 1 error for every 10 products
_____ (3) 2-3 errors for every 10 products
_____ (4) 4-5 errors for every 10 products
_____ (5) More than 5 errors for every 10 products

42. Be able to complete repetitive tasks previously learned to proficiency:

a. Involving 1 step at:

_____ (1) 0-10% of normal rate
_____ (2) 11-20% of normal rate
_____ (3) 21-30% of normal rate
_____ (4) 31-50% of normal rate
_____ (5) Higher than 50% of normal rate

b. Involving 2 steps at:

_____ (1) 0-10% of normal rate
_____ (2) 11-20% of normal rate
_____ (3) 21-30% of normal rate
_____ (4) 31-50% of normal rate
_____ (5) Higher than 50% of normal rate

c. Involving 3 or more steps at:

_____ (1) 0-10% of normal rate
_____ (2) 11-20% of normal rate
_____ (3) 21-30% of normal rate
_____ (4) 31-50% of normal rate
_____ (5) Higher than 50% of normal rate

43. Maintain both quantity and quality production by **not**:

_____ a. Increasing the number of products while at the same time increasing the number of mistakes per unit of time
_____ b. Decreasing the number of products while at the same time decreasing the number of mistakes per unit of time

44. Be able to participate in work environment for periods of:

_____ a. 1 hour
_____ b. 2 hours
_____ c. 3 hours
_____ d. 4 hours
_____ e. 5 hours
_____ f. 6 hours

45. Work at job station continuously for:

_____ a. 0-15 minutes
_____ b. 16-30 minutes
_____ c. 31-60 minutes
_____ d. 1-2 hours
_____ e. More than 2 hours

46. **Not** leave job station inappropriately during work period more than:

_____ a. 0 times per day
_____ b. 1-2 times per day
_____ c. 3-5 times per day
_____ d. 6-8 times per day
_____ e. 9-15 times per day
_____ f. 16 or more times per day

FOR ENTRY INTO SHELTERED EMPLOYMENT IS IT IMPORTANT THAT A CLIENT SHOULD:

Please check (✓) if important.

47. Continue working without disruptions when:

______ a. Supervisor is observing
______ b. Fellow workers are observing
______ c. Stranger is observing
______ d. Two strangers are observing
______ e. More than two strangers are observing
______ f. Being bothered by fellow workers
______ g. Other, Please specify: ______________________________

48. Work independently alone at table without discontinuing work more frequently than:

______ a. 0 times per day
______ b. 1-2 times per day
______ c. 3-5 times per day
______ d. 6-8 times per day
______ e. 9-15 times per day
______ f. More than 15 times per day

49. Work alone continuously without disruptions for:

a. A 15-minute period with:

______ (1) No contacts from supervisor
______ (2) 1-2 contacts from supervisor
______ (3) 3-5 contacts from supervisor
______ (4) 6-8 contacts from supervisor
______ (5) 9-15 contacts from supervisor
______ (6) More than 15 contacts from supervisor

b. A 30-minute period with:

______ (1) No contacts from supervisor
______ (2) 1-2 contacts from supervisor
______ (3) 3-5 contacts from supervisor
______ (4) 6-8 contacts from supervisor
______ (5) 9-15 contacts from supervisor
______ (6) More than 15 contacts from supervisor

c. A 60-minute period with:

______ (1) No contacts from supervisor
______ (2) 1-2 contacts from supervisor
______ (3) 3-5 contacts from supervisor
______ (4) 6-8 contacts from supervisor
______ (5) 9-15 contacts from supervisor
______ (6) More than 15 contacts from supervisor

d. A 2-hour period with:

______ (1) No contacts from supervisor
______ (2) 1-2 contacts from supervisor
______ (3) 3-5 contacts from supervisor
______ (4) 6-8 contacts from supervisor
______ (5) 9-15 contacts from supervisor
______ (6) More than 15 contacts from supervisor

50. Work in a group situation and increase his/her productivity:

______ a. On his/her own
______ b. When supervisor asks him/her to work faster
______ c. When supervisor asks him/her to produce more than that produced for the previous period
______ d. When supervisor asks his/her group to produce more than that produced for the previous period
______ e. When supervisor asks his/her group to complete the job by a specified time

51. Work alone and increase his/her productivity:

______ a. On his/her own
______ b. When supervisor asks him/her to work faster
______ c. When supervisor asks him/her to produce more than that produced for the previous period
______ d. When supervisor asks him/her to complete the job by a specified time

52. Increase his/her productivity in group or individual setting:

______ a. When supervisor threatens with loss of job
______ b. When supervisor threatens with pay cut
______ c. When supervisor offers bonus incentive
______ d. When supervisor provides immediate tangible incentives for completed work (money, tokens, food, candy, etc.)

53. Initiate contact with supervisor when he/she:

______ a. Cannot do job
______ b. Runs out of materials to do job
______ c. Finishes job
______ d. Feels too sick or tired to continue working
______ e. Needs a drink of water or to go to restroom
______ f. Makes a mistake on the job

FOR ENTRY INTO SHELTERED EMPLOYMENT IS IT IMPORTANT THAT A CLIENT SHOULD:

Please check (✓) if important.

54. Initiate contact with fellow worker when he/she:

______ a. Needs help on task
______ b. Needs task materials from fellow worker
______ c. Needs evaluation of work completed

55. **Not** initiate contact inappropriately with:

a. Co-workers (who are working) more frequently than:

______ (1) 0 times per day
______ (2) 1-2 times per day
______ (3) 3-5 times per day
______ (4) 6-8 times per day
______ (5) 9-15 times per day
______ (6) 16 or more times per day

b. With supervisor more frequently than:

______ (1) 0 times per day
______ (2) 1-2 times per day
______ (3) 3-5 times per day
______ (4) 6-8 times per day
______ (5) 9-15 times per day
______ (6) 16 or more times per day

c. Stranger in shop more frequently than:

______ (1) 0 times per day
______ (2) 1-2 times per day
______ (3) 3-5 times per day
______ (4) 6-8 times per day
______ (5) 9-15 times per day
______ (6) 16 or more times per day

56. Does not deviate from the shop rules (set down by the supervisor) more frequently than:

______ a. 0 times per day
______ b. 1-2 times per day
______ c. 3-5 times per day
______ d. 6-8 times per day
______ e. 9-15 times per day
______ f. 16 or more times per day

57. Does not display or engage in:
a. Minor disruptive behaviors (e.g., interruptions) more frequently than:

______ (1) 0 times per week
______ (2) 1-2 times per week
______ (3) 3-5 times per week
______ (4) 6-8 times per week
______ (5) 9-15 times per week
______ (6) 16 or more times per week

b. Major disruptive behaviors (e.g., tantrums) more frequently than:

______ (1) 0 times per week
______ (2) 1-2 times per week
______ (3) 3-5 times per week
______ (4) 6-8 times per week
______ (5) 9-15 times per week
______ (6) 16 or more times per week

58. Work at job station with:

______ a. 0 work disruptions (client stops working) per day
______ b. 1-2 disruptions per day
______ c. 3-5 work disruptions per day
______ d. 6-8 work disruptions per day
______ e. 9-15 work disruptions per day
______ f. More than 15 work disruptions per day

59. Respond appropriately to social contacts initiated by others on at least:

______ a. Every occasion
______ b. 1 out of every 2 occasions
______ c. 1 out of every 5 occasions
______ d. 1 out of every 10 occasions
______ e. 1 out of every 15 occasions

60. Have a good disposition and smile appropriately when contacted by:
a. The supervisor on:

______ (1) Every occasion
______ (2) 1 out of every 2 occasions
______ (3) 1 out of every 5 occasions
______ (4) 1 out of every 10 occasions
______ (5) 1 out of every 15 occasions

b. Fellow workers on:

______ (1) Every occasion
______ (2) 1 out of every 2 occasions
______ (3) 1 out of every 5 occasions
______ (4) 1 out of every 10 occasions
______ (5) 1 out of every 15 occasions

61. Be sociable on the job and initiate appropriate contacts with fellow workers:

______ a. 1-2 times per day
______ b. 3-5 times per day
______ c. 6-8 times per day
______ d. 9-15 times per day
______ e. More than 15 times per day

FOR ENTRY INTO SHELTERED EMPLOYMENT IS IT IMPORTANT THAT A CLIENT SHOULD:

Please check (✓) if important.

62. Adapt to new work setting with normal levels of:

a. Productivity within a period of:

______ (1) 0-30 minutes
______ (2) 31-60 minutes
______ (3) 1-6 hours
______ (4) 1-5 days
______ (5) One week or more

b. Contacts with supervisor:

______ (1) 0-30 minutes
______ (2) 31-60 minutes
______ (3) 1-6 hours
______ (4) 1-5 days
______ (5) One week or more

63. Want to work for:

______ a. Money
______ b. Tokens
______ c. Edibles
______ d. Social approval
______ e. Sense of accomplishment

Directions:
Now go back and circle those items (those you checked (✓) as important) which you consider **essential** for success in your setting.

"ESSENTIAL" DEFINED -- Particular skill or performance level is absolutely essential for the person to be employed and maintain employment in your setting. Without this skill or performance level, the person **would not be suitable** for sheltered work.

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